Redline 2.5

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Getting Started

Intended Audience

This manual is intended for IT administrators in their use of Redline or anyone wanting to learn more about Redline. It includes installation instructions and feature descriptions.

Technical Support

If you have a technical support question, please consult the GWAVA Technical Support section of our website at www.gwava.com. For technical support, call 801-437-5678.

Sales

To contact a Beginfinite sales team member, please e-mail info@gwava.com or call Tel: 866-GO-GWAVA (866-464-9282) in North America or +1 514 639 4850.

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About Redline

Redline is a reporting and monitoring solution for Novell GroupWise® that provides a Dashboard for quick access to the most critical areas of GroupWise®, a real time monitoring solution that notifies you via e-mail or pager and a System viewer that allows you to see all of the details of your GroupWise components in a single view. Redline produces reports for compliance, system analysis, capacity planning and security auditing.

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- Although their code does not appear in the current release, the authors also wish to thank Hutchison Avenue Software Corporation for their prior contributions
- Toffa SyncWise 2005 is produced by Toffa International
- Blackberry is produced by Research in Motion LTD
- NotifyLink is produced by Notify Technology Corporation.

V.3

Introduction

Redline 2 is a reporting and monitoring GroupWise solution that reduces the risks from internal and external threats, meets compliance reporting requirements, and identifies areas where GroupWise can better serve the organization. Unlike native tools providing a few pieces of scattered information on single systems through many interfaces, Redline gathers all the information to a single point of contact, providing all the information administrators need via reports, alerts and a straightforward dashboard.

Product Overview

Redline is a reporting and monitoring solution for Novell GroupWise that provides a dashboard for quick access to the most critical areas of GroupWise, a real time monitoring solution notifying administrators via e-mail or pager and a system viewer showing all of the details of a system's GroupWise components in a single view. Redline produces reports for compliance, system analysis, capacity planning and security auditing.

GroupWise is a powerful solution for your organization, however many of the capabilities of GroupWise are under-used. With Redline, you can determine the usage of features like WebAccess or show the overall ROI that GroupWise is providing your organization.

New in Redline 2.5

- Blackberry and NotifyLink support
- GroupWise 7 support, including support for the Document Viewer Agent.
- Support for GWAVA 3.5/3.6.
- Reload and Reveal integrations
- RPM automated install for Linux
- New installation and testing tools to simplify Redline set-up
- Notes/Exchange/Async gateway support
- Platform monitoring. Basic Values of Windows/Linux/Netware are monitored and can be graphed, alerts can be generated etc.
- Customizable database thresholds
- New console commands
- UI improvements including Improved alert status information on the Agent and Control Center and multiple action checkboxes
- Built in knowledgebase to advise you on most common alerts
- The 2.5 edition has both increased web interface speed but cut CPU demand

New in Redline 2.5 SP1

- Data Compression between Agent and Control Center
- Enhanced Alert Management
- Redline Agent self-monitoring

New in Redline 2.5 SP2

- Improved Cluster support
- Import of Gateway accounting logfiles
- Full Message Tracking
- Faster Web Interface
- Support for GroupWise Mobile Server
- Support for Advansys' Archive2Go

Increase your message system's performance

While GroupWise is a very stable messaging platform, there are many risks that can slow performance or create issues for help desk administrators. Redline can identify people using too much disk space or who are rapidly reaching their limits, messages that are backed up in queues, slow delivery times, or numerous other issues. Via weekly reports, immediate alerts or the quick and easy dashboard, you can get the information you need the way you need it.

Meet compliance reporting requirements

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Whether your organization needs to show compliance with HIPAA, Sarbanes-Oxley, GLBA, the NIST standard or GroupWise best practices, the reporting in Redline addresses these concerns. Redline reports show continued compliance or identify areas where your company may not be in compliance. If someone makes a change to a server that violates these standards, our alerting interface can immediately notify you to eliminate the risk.

Dashboard and System Viewer

Our easy to use Dashboard provides a quick way to evaluate the overall health of your GroupWise systems. With alert indicators that tie into the monitoring infrastructure, performance indicators that show key information about GroupWise and graphs and RPM gauges that show message traffic and connected users, you will see everything you need in one screen. While everything is configured out of the box, advanced users can customize the dashboard to meet their needs. The System Viewer provides a single point to drill down into each component of your GroupWise system. This provides easy access to information needed to diagnose problems or evaluate the health of your messaging environment.

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Monitoring and Alerting

Redline provides configurable alerts on many areas of GroupWise such as system availability, message traffic, message delivery, and security compliance. The alerts can be viewed via our web based Control Center or sent to e-mail, pagers, or via SNMP traps to third party monitoring architectures.

Single Point of Management

Unlike native or commercial tools that scatter information across multiple applications or provide information about a single server, Redline delivers your entire GroupWise enterprise in a single console. This interface provides access to reports, alerts and our dashboard all from any web browser.

Licensing

Redline is licensed per user. Redline will operate as a demo for thirty days for testing purposes. Once the demo period elapses, you must purchase a license for the appropriate number of users on your system. To enter or update your Redline license:

- **Launch** the Redline web interface
- Click the **Configure** button.
- Then, click the **License** tab to gain access to the Licence information screen
- Fill out the **registration name**, the **registration code, licensed user** and **key** fields. Copy and paste this information exactly as given to you from GWAVA licensing
- Click **OK** once the required changes have been entered

Do not hesitate to contact us if you have any questions about purchasing, entering or updating your licence key information. To determine whether your license information has been entered successfully, examine the **Licence Type** field. It should no longer read **Demo Version.**

Note: in the Demo Version, you are limited to viewing five alerts at a time, and Reports are disabled.

Note: You must update the licensing information in all configured rlagent.conf files to match the information entered in the Control Center **exactly**. This file does not update automatically. See Interlude: Licensing for more information

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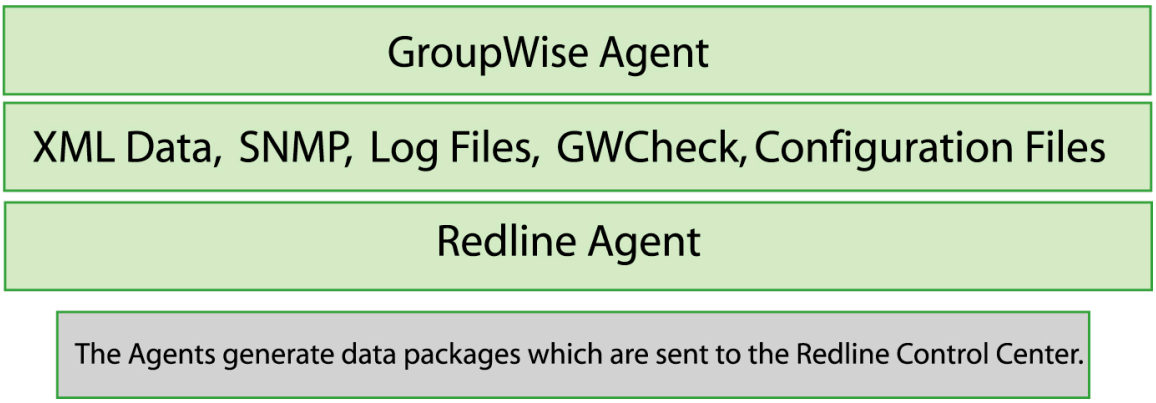
Installing Redline

Redline is a powerful tool for your GroupWise system. Redline collects information from many different sources, including every GroupWise agent, GWAVA 3.x, Guinevere 3.x, NotifyLink, BES, Reveal, Reload, and Toffa SyncWise.

Because each and every component requires specific instructions for integration, it is recommended that administrators read through this entire section of the manual before installing the Redline Program files, to avoid frustration and confusion.

How Redline works and where to Install Redline


GroupWise Agent
XML Data, SNMP, Log Files, GWCheck, Configuration Files
Redline Agent
The Agents generate data packages which are sent to the Redline Control Center.

Redline is a monitoring, analysis and audit tool for GroupWise messaging systems of all sizes, from small firms with one MTA and a single post office, to institutions with SLA integrations. Redline collects data in many different ways and presents them in a single interface:

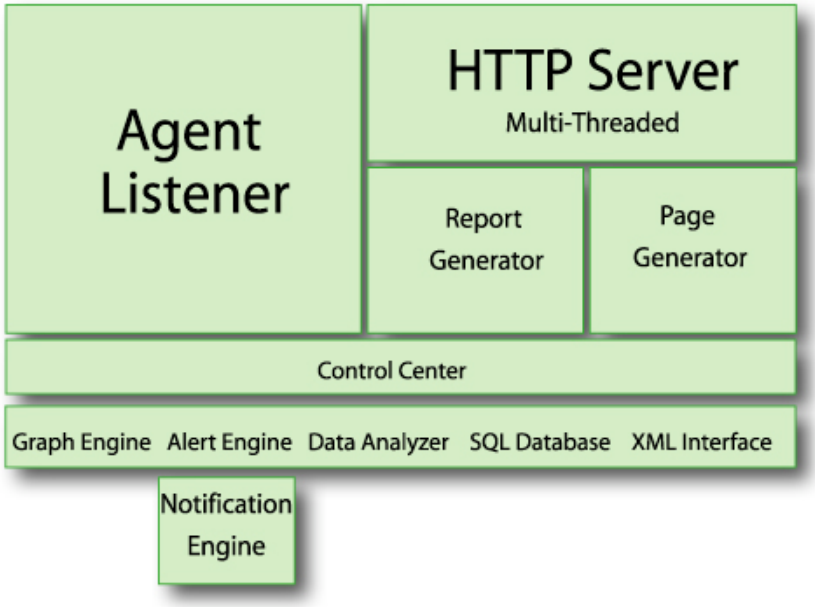
- SNMP values
- XML Agent data representing settings, status etc.
- Host data
- Logfiles
- GWCHECK logs

Redline consists of two separate programs:

The **Redline Agent** (also referred to as RLAGENT) component connects to the GroupWise agents, GWAVA, Guinevere, et cetera, and gathers information regularly. The information is then forwarded to the Redline Control Center. The specific components that the RLAGENT collects information from are specified (along with authentication instructions) in the RLAGENT's configuration file, RLAGENT.CONF (Netware and Linux) or RLAGWIN.CONF for the Windows install. The configuration file also tells RLAGENT which Redline Control Center to connect to and holds the licensing information for that Control Center.

The **Redline Control Center** (also referred to as RLCENTER) takes the information provided to it from one or more Redline Agents and stores the information in database files. Similarly, graphs and alerts are also stored by the RLCENTER. The RLCENTER contains an embedded HTTP web server that administrators accesses to manage Redline.

In all Redline system installations, regardless of how large or small your GroupWise system is, there must be at least one RLAGENT and one RLCENTER. (One exception: Reveal does not require or use RLAGENT to communicate with RLCENTER)



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In general, one RLAGENT is installed on every server running a monitored component. Usually, one installs only a single RLCENTER per GroupWise system. (Each RLAGENT can actually report to more than one RLCENTER if desired.)

The reasoning behind Redline's design is simple: RLCENTER serves as a central repository for information gathered and for administration. RLAGENT communicates via TCP/IP to RLCENTER to send the collected data. This means that RLAGENT need not be installed on the same machine as RLCENTER.

RLAGENT communicates via both TCPIP and direct file access, depending on the component integration. While theoretically administrators can install RLAGENT on another server from the GroupWise agents and collect SOME of the information needed, administrators would not be able to generate all of the desired reports. For all reports, local access is necessary.

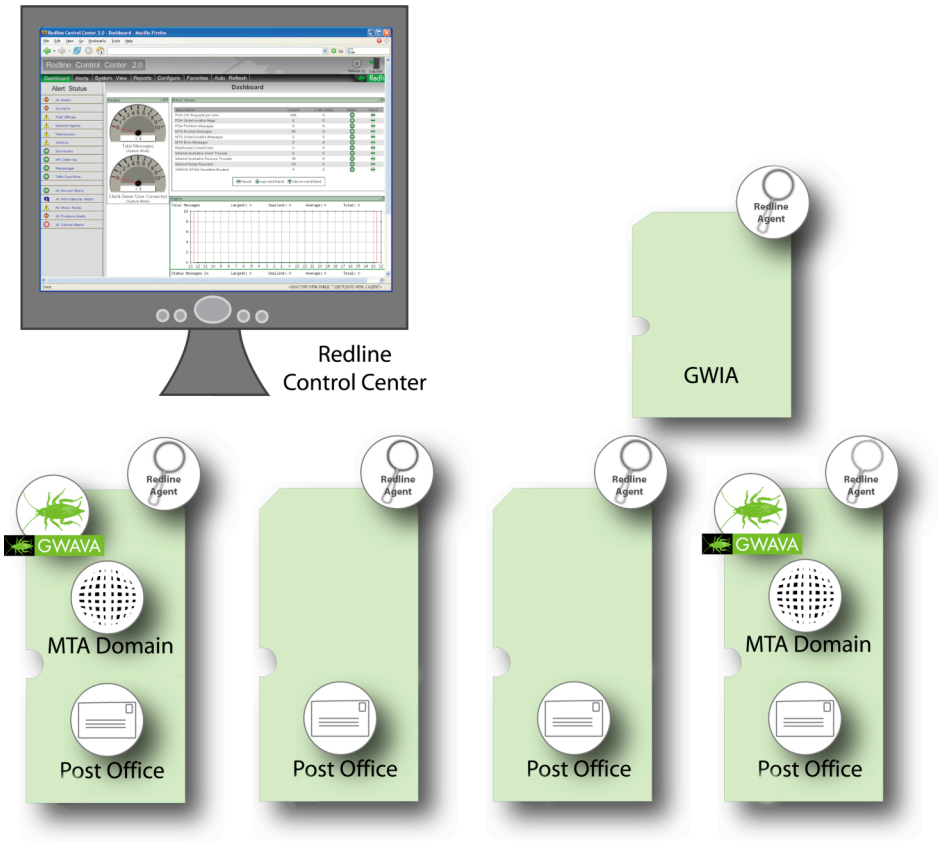
RLAGENT automatically tries to connect to each of its configured components every two minutes.

In the next few sections of the manual, the basic system requirements of Redline will be discussed. Then, each individual component's prerequisites will be outlined. Appendix 2 contains a helpful worksheet checklist so that administrators can organize all of the necessary information in the RLAGENT's configuration file.

RLCENTER runs on Netware and Linux. RLAGENT runs on Netware, Linux and Windows.

The following are components from which RLAGENT gathers information:

- GroupWise Post Office Agent (POA)
- GroupWise Message Transfer Agent (MTA)
- GroupWise Internet Agent (GWIA)
- GroupWise Web Access Agent
- GroupWise Messenger Agent
- GroupWise Messenger Archive Agent
- GroupWise Document Viewing Agent
- GroupWise API Gateway
- GroupWise Exchange, Notes and Async Gateways
- GroupWise Document Viewer Agent
- GWAVA 3.10+
- Guinevere 3 (Guinevere 3.2 recommended)
- Toffa SyncWise, Blackberry or NotifyLink
- GWAVA Reload
- GWAVA Reveal



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Minimum System Requirements

Core Requirements:

- GroupWise 5.5EP SP5, GroupWise 6.0 SP, or GroupWise 6.5 (SP4+ recommended) and GroupWise 7
- Redline Agent: 10MB Hard Drive Space, 5 MB free memory
- Redline Control Center: 30 MB Hard Drive Space, 10 MB free memory. More disk space may be necessary for all of the substantial information gathered
- A supported internet browser (Internet Explorer, Mozilla FireFox, Mozilla Suite, Konqueror) with the Macromedia Flash plug-in

Note - There is a bug in GroupWise 6.5 SP2 preventing correct operation of Redline. This version is specifically **not** supported. We recommend GroupWise 6.5 SP4 or higher.

The following server operating systems are supported:

- Netware 5.1 SP8.
- Netware 6.0 SP5, with the latest LIBC update. For Netware 5.1 and 6.0, at publication time, this is NWLIB6C.EXE and can be found on http://support.novell.com
- Netware 6.5 SP3 or Netware OES 1.0
- SuSE Linux Enterprise 9 or Linux OES 1.0
- Windows 2000 SP4, Windows 2003 SP1 (RLAGENT only)

The following additional component integrations are supported:

- GWAVA 3.10 or higher
- Guinevere 3 or higher
- Toffa SyncWise 2005
- Novell Messenger 1.0 SP4, 1.0SP5, 2.0
- Async Gateway 2.0
- GroupWise Exchange Gateway 3
- GroupWise Notes Gateway 3
- Toffa SyncWise 2005
- Notifylink 4
- BlackBerry Enterprise Server 4.0 SP2 all versions for GroupWise
- GWAVA Reveal 1.1
- GWAVA Reload 1.0

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GroupWise Agent Requirements

The GroupWise POA, MTA, GWIA, WebAccess, and Messenger components all share some common requirements:

- Each contains an embedded HTTP server, which must be enabled, with SSL off, and a configured username and password
- Each must have Logging turned on, and set to verbose
- Each must have SNMP enabled. This is not currently used by RedLine, so you may optionally skip this step; however future versions may utilize this information.

Additionally, there are specialized requirements for some of these agents:

- The GroupWise POA needs to be configured in its Scheduled Events with a special series of GWCHECKs to generate user and mailbox information
- The GroupWise MTA must have Message Logging enabled

The GroupWise API Gateway does not have an HTTP server interface, but it does require logging to be on and set to verbose. In the following section, each of these requirements will be examined more closely.

Common Configuration Tasks for GroupWise Agents

One of the primary information sources for RLAGENT is the HTTP server built into every GroupWise component (except the API Gateway as well as Guinevere) since GroupWise 5.5 EP. This HTTP server provides configuration, and status information for each component.

To enable the HTTP interface, run ConsoleOne and connect to your GroupWise system. Then, follow the instructions below for GroupWise 6.0 and 6.5 and 7. Ensure each agent has verbose logging enabled.

An alternative location (but generally discouraged) to configure these settings is each agent's startup file. These parameters take precedence over settings in ConsoleOne. The parameters are:

- **/http -** Enable HTTP Interface
- **/httpport** – HTTP listening port
- **/httpuser-[username]** - Specify the Username for the HTTP Interface
- **/httppassword-[password]** - specify the Password for the HTTP Interface

Begin by printing the Appendix 2 work sheet. To ensure a smooth installation, fill out the fields for each and every GroupWise agent that must be monitored.

- **Server Name** - File Server Name
- **NOS** - Windows, Linux, Netware
- **Agent Type** - MTA, POA, GWIA, WebAccess, Messenger, Messenger Archive, API Gateway.
- **HTTPAddress** – IP Address
- **HTTPPort** – TCP Port of agent's HTTP server
- **HTTPUsername** – Username for accessing agent's HTTP server
- **HTTPPassword** – Password for accessing agent's HTTP server
- **Logging** – Turned Logging on, set to Verbose. Enter Yes or No
- **Message Logging** – Yes or No, valid only for MTA
- **GWCHECK** – Yes or No, valid only for POA

The RLAGENT configuration file needs this information for each component. The new RLCONFIG utility provided during Redline Installation will allow you to easily enter, edit, and test this information.

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Outline for Installing Redline

Which agents will be monitored?

- MTA
- POA
- GWIA
- Web Access
- GWAVA
- Guinevere

Consider your current system

What agents will be monitored, and where are they located? What server will run the Control Center? The Control Center does not require many resources, but it needs to be in a location were all of the other servers can communicate with it. Which servers are running which GroupWise components? Each one will need to have the Redline agent installed on it. Collect the IP addresses for each one. Use the Appendix 2 work sheet to plan your work.

Configure settings for each component integration

- Open the GroupWise object in ConsoleOne. Select the GroupWise/Network Address tab
- Ensure that SSL is disabled and that the HTTP port is assigned. You may use the defaults or change the port number but note if you change it so that you can configure Redline to see that port later. Remember to use the work sheet in Appendix 2 to log your changes
- Select the **Agent Settings** tab (GroupWise/Optional Settings for the GWIA). Enter a username and password. You may use the same user name and password for each GroupWise component
- Select GroupWise/Log Settings for each component and increase the logging level to verbose
- Close ConsoleOne
- For non-GroupWise products, see the specific instructions in this manual

Run the Installer

- From the /redline/netware/ folder run the setup.exe. Click **Next**. For Windows installation, go to the Windows folder and run setup.exe. For Linux, install the RPM in the Linux folder
- NetWare/Wndows: Accept the license agreement. Click **Next**
- NetWare: Select the server that the Control Center will run on. Click **Next**
- NetWare: Select the server or servers that the Agents will run on. Click **Next**
- NetWare: Select Install/Update and click **Finish**

Configure your Redline Agent using RLCONFIG or manually

- **Windows install** - RLCONFIG is installed automatically, and you are prompted to configure your Redline Agent at the end of install. You can also manually select Configure Redline Agent from the Redline submenu in the Start/Programs menu
- **Netware** - If you are running the Windows based installer, you are given a checkbox option to install and run the RLCOFNIG at end of install. If installing from Netware console, you must edit rlagent.conf manually. Appendix 8 discusses this in detail
- **Linux** - You must configure RLAGENT.CONF manually. Appendix 8 discusses this in detail.
- **Manual Configuration** - Browse to the /opt/Beginfinite/redline/conf folder (Program files\Beginfinite\redline\conf on Windows) and select the rlagent.conf file (rlagwin.conf on Windows). Edit this with a text editor. Appendix 8 discusses this in detail

Performance issues?

Consult the Trouble Shooting section to tips to help diagnose set-up problems.

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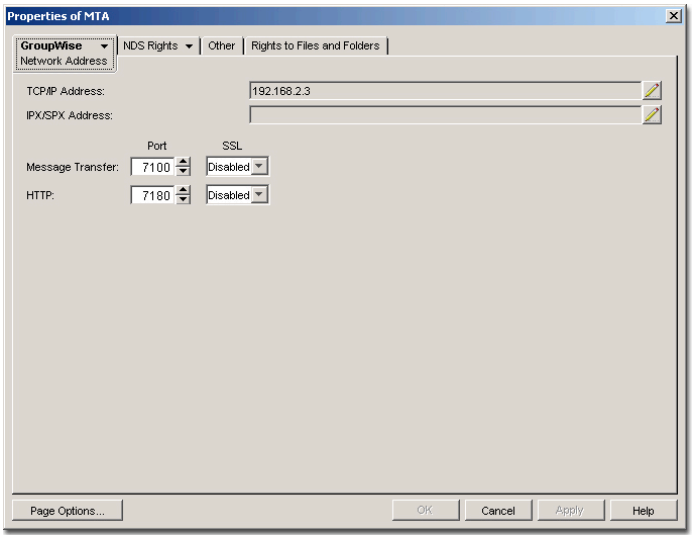
GroupWise MTA

Begin by writing down the IP address for this component on the installation work sheet.

Open the MTA object in ConsoleOne. Select the **GroupWise/Network Address** tab.

Ensure that SSL is disabled and that the HTTP port is assigned (the default is 7180). Note this port on the installation worksheet.

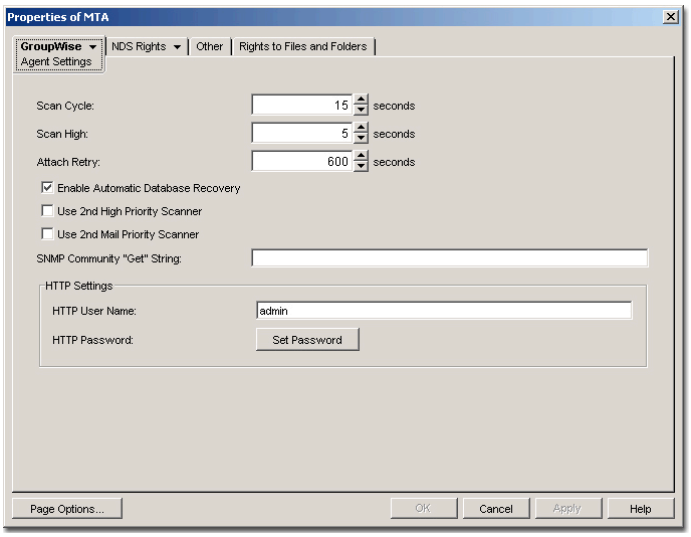


Next, go to the **GroupWise/Agent Settings** tab. A screen similar to the example will be presented:

Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Include this information in the Appendix 2 work sheet as well.

The MTA already defaults to having SNMP on (unless /nosnmp is in the startup file), but please assign a community name here (other than public or blank) to reduce security risks.

Click **OK** to save your settings.



Testing

Wait one minute for the GroupWise configuration to propagate. Test your configuration with a web browser by typing: *http://ipaddress:httpPort*

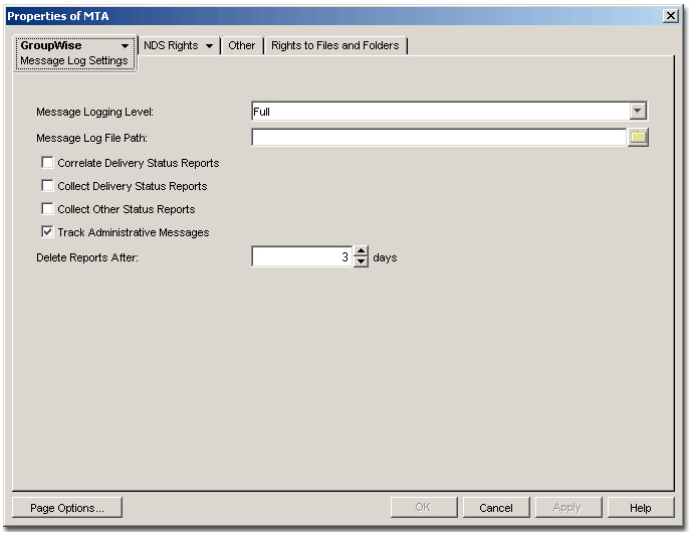
For example: if the MTA were running on a server with an IP address of 192.168.2.3, and an HTTP port of 7180, http://192.168.2.3:7180

You should be prompted for the username and password just assigned. If this does not occur, recheck the settings in ConsoleOne, and open the agent's startup file to verify that no startup switches have overridden this configuration. Also, try restarting the agent.

- Do not proceed until this is working

Return to ConsoleOne and reopen the agent. Go to the **GroupWise/Log Settings** tab to verify logging is on and set to verbose.

See Turning on Message Logging in the GroupWise MTA elsewhere in this manual for additional configuration tasks.



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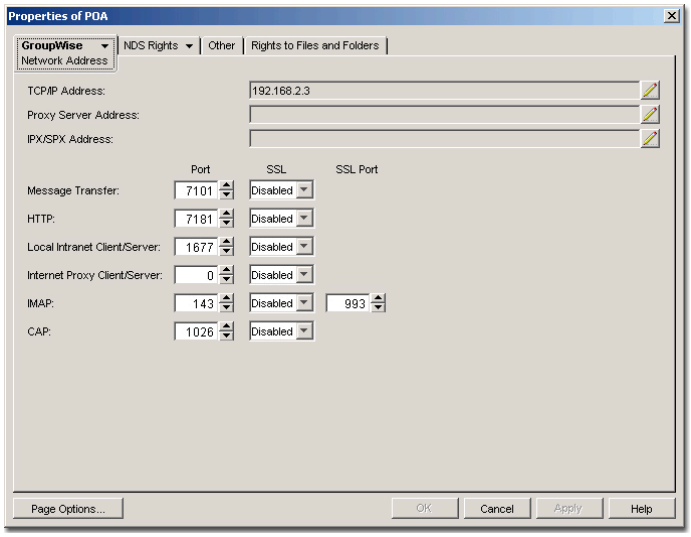
GroupWise POA

Begin by writing down the IP address for this component on the work sheet provided in Appendix 2.

Open the POA object in ConsoleOne, and go to the **GroupWise/Network Address** tab.

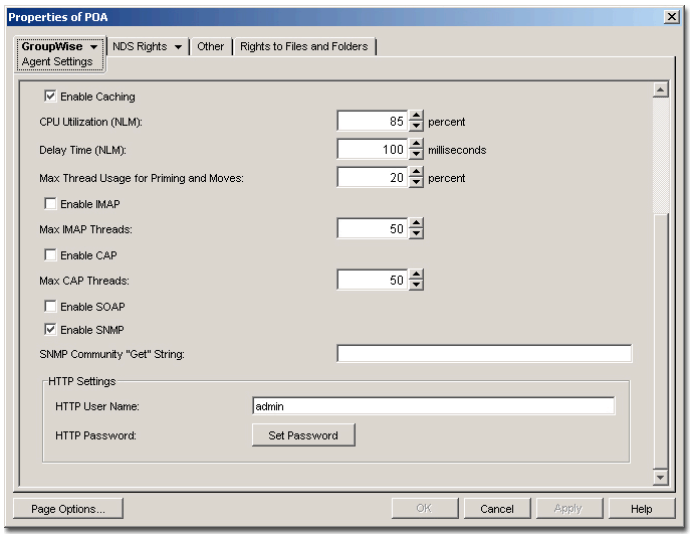
Ensure SSL is disabled and that the HTTP port is assigned (the default is 7181). Note this port on the work sheet as well.



Next, select the **GroupWise/Agent Settings** tab. Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Write down this information in the work sheet as well.

Make sure SNMP is turned on. You probably want to assign a community name, other than public or blank (which defaults to public), to reduce the security risk.

Click **OK** to save your settings.



Testing

Wait one minute for the GroupWise configuration to propagate. Test in a web browser by typing: *http://ipaddress:httpPort*

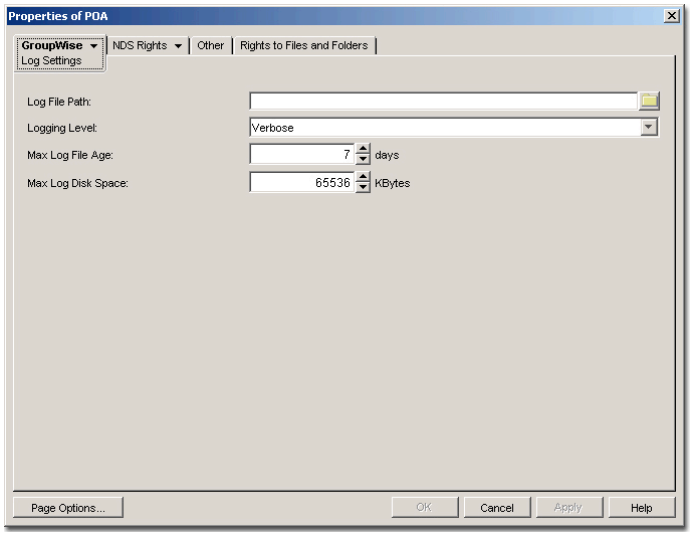
For example if the POA were running on a server with an IP address of 192.168.2.3, and an HTTP port of 7181, http://192.168.2.3:7181

You should be prompted for the username and password just assigned. If this does not occur, recheck the settings in ConsoleOne, and open the agent's startup file to verify that no startup switches have overridden this configuration. Also, try restarting the agent.

- Do not proceed until this is working

Return to ConsoleOne and reopen the agent. Go to the **GroupWise/Log Settings** tab, and verify logging is both on and set to verbose.

Consult the section Enabling GWCHECK Scheduled Events in the GroupWise POA for additional POA configuration tasks



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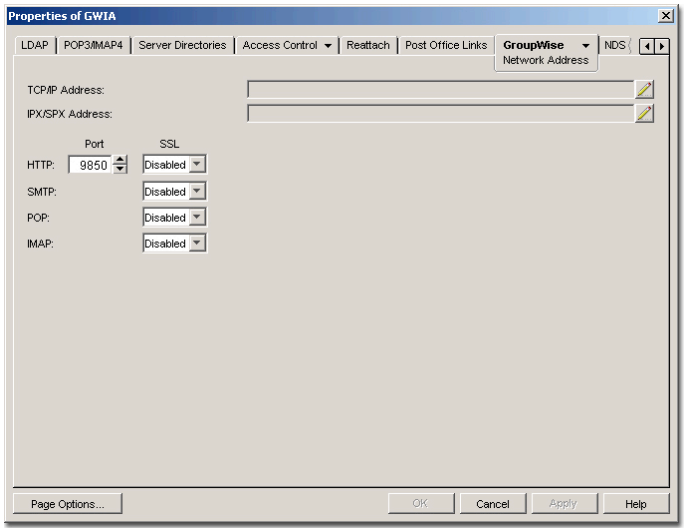
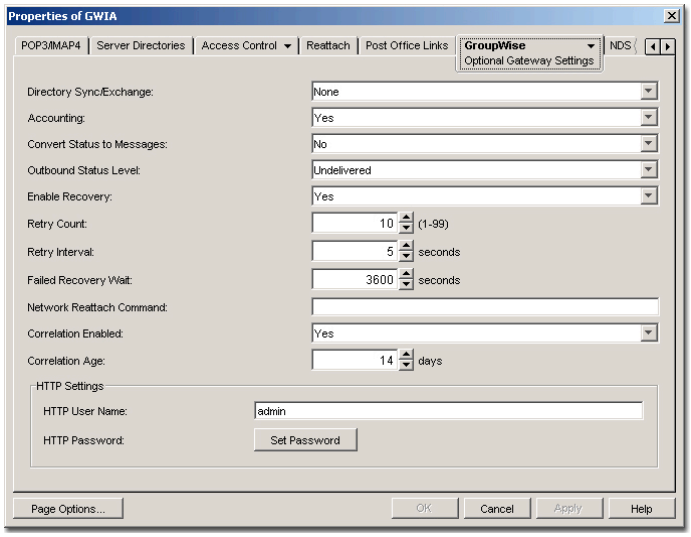
GroupWise Internet Agent (GWIA)

Begin by writing down the IP address for this component. Record this information on your worksheet. Open the GWIA object in ConsoleOne, and go to the **GroupWise/Network Address** tab.



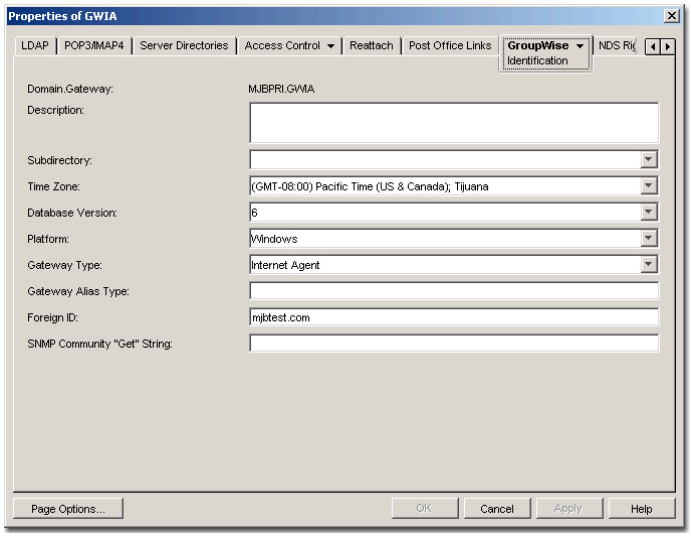
Ensure SSL is disabled and that the HTTP port is assigned (the default is 9850). Note this port for the work sheet as well.

Next, select the **GroupWise/Optional Gateway** Settings tab.



Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Include this information in the work sheet as well.

Select the **GroupWise Identification** tab. SNMP is automatically enabled for the GWIA, but you should assign a community name here (other than public or blank, which present security risks). Click **OK** to save your settings. Wait one minute for the GroupWise configuration to propagate. Test in a browser by typing *http://ipaddress:httpPort*



For example if the GWIA were running on a server with an IP address of 192.168.2.3, and an HTTP port of 9850, http://192.168.2.3:9850

You should be prompted for the username and password just assigned. If this does not occur, recheck the settings in ConsoleOne, and open the agent's startup file to verify that no startup switches have overridden this configuration. Also, try restarting the agent.

- Do not proceed until this is working

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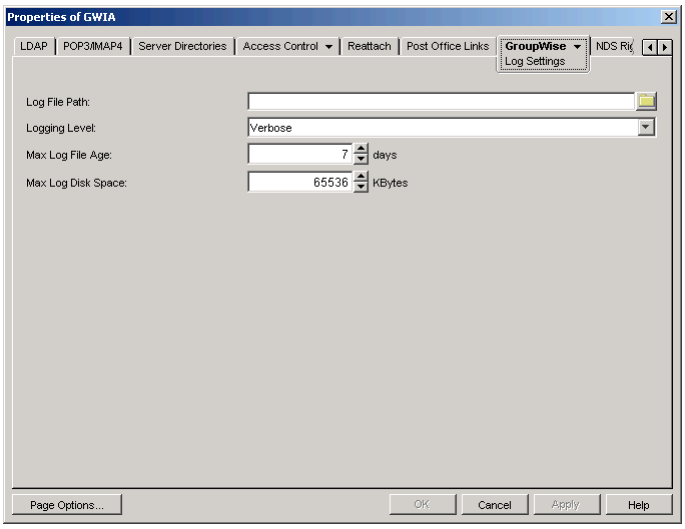
Return to ConsoleOne and reopen the agent. Go to the **GroupWise/Log Settings** tab to verify logging is on and set to verbose.



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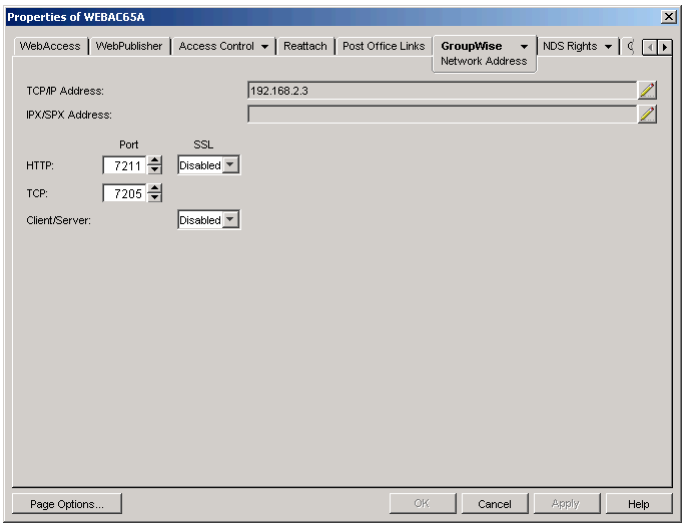
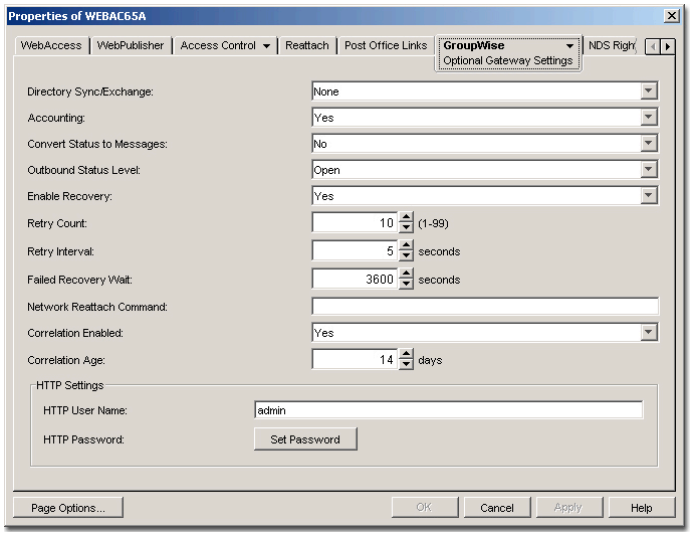
GroupWise WebAccess

Begin by writing down the IP address for this component. Record this information on your worksheet. Open the WebAccess object in ConsoleOne, and go to the **GroupWise/Network Address** tab.



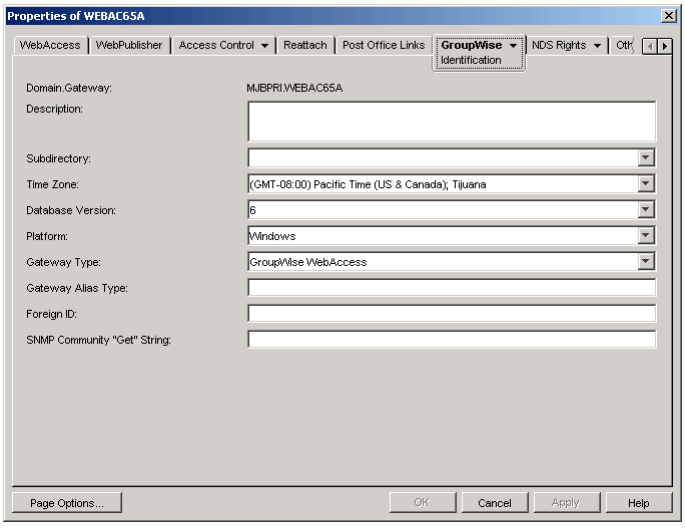
Ensure SSL is disabled and that the HTTP port is assigned (the default is 7211). This port should be noted in the work sheet as well.

Next, select the GroupWise/Optional Gateway Settings tab.



Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Include this information in the work sheet as well.

Select the **GroupWise Identification** tab. SNMP is automatically enabled for the GWIA, but you should assign a community name here (other than public or blank, which present security risks).



Click **OK** to save your settings. Wait one minute for the GroupWise configuration to propagate. Test in a browser by typing *http://ipaddress:httpPort*

For example if the WebAccess agent were running on a server with an IP address of 192.168.2.3, and an HTTP port of 7211, http://192.168.2.3:7211

You should be prompted for the username and password just assigned. If this does not occur, recheck the settings in ConsoleOne, and open the agent's startup file to verify that no startup switches have overridden this configuration. Also, try restarting the agent.

- Do not proceed until this is working

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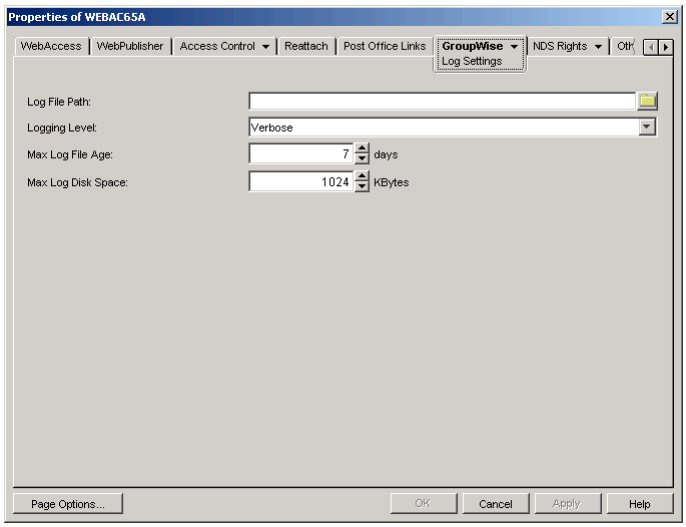
Return to ConsoleOne and reopen the agent. Go to the **GroupWise/Log Settings** tab, and verify logging is on and set to verbose.

Note - Some versions of GroupWise will not write the WebAccess logs to disk unless the startup file (strtweb.ncf) is edited to add /logdiskon as a command line switch.



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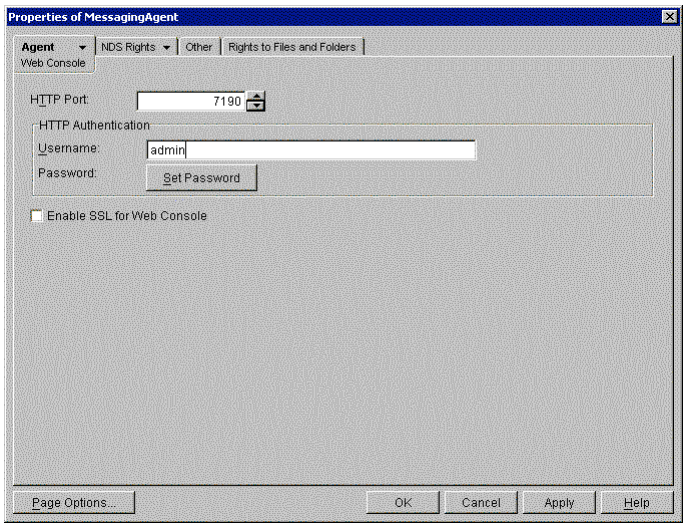
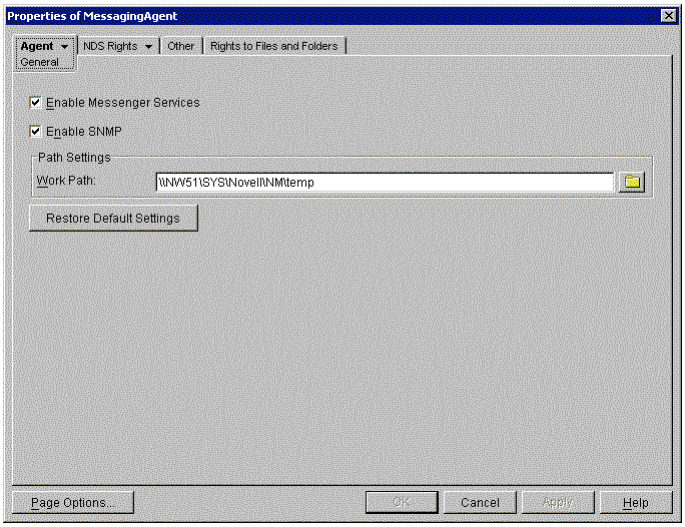
GroupWise Messenger and Messenger Archive Agent

Begin by including the IP address for this component on the work sheet. Open the MessagingAgent object in ConsoleOne, and go to the **Agent/Web Console** tab.



Ensure SSL is disabled and that the HTTP port is assigned (the default is 8311). Note this port on the work sheet as well.

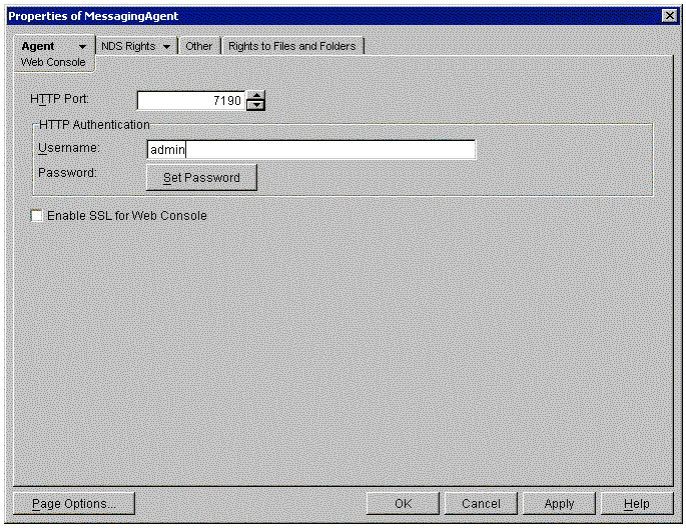
Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Include this information in the work sheet as well.



Next, select the **Agent/General** tab. Ensure SNMP is enabled.

Click **OK** to save your settings. Wait one minute for the GroupWise configuration to propagate and then test by opening a web browser by typing *http://ipaddress:httpPort*

For example if the Messenger agent were running on a server with an IP address of 192.168.2.3, and an HTTP port of 8311, *http://192.168.2.3:8311*



You should be prompted for the username and password just assigned. If you are not, recheck your settings in ConsoleOne, and open the agent's startup file to verify that no startup switches override this configuration. Also, try restarting the agent.

- Do not proceed until this is working

The Messenger Archiving Agent is configured almost identically – Open the Archiving Agent object in Console One, and go to the **Agent/Web Console** tab.

Ensure SSL is disabled and that the HTTP port is assigned (the default is 8313). Note this port in the work sheet.

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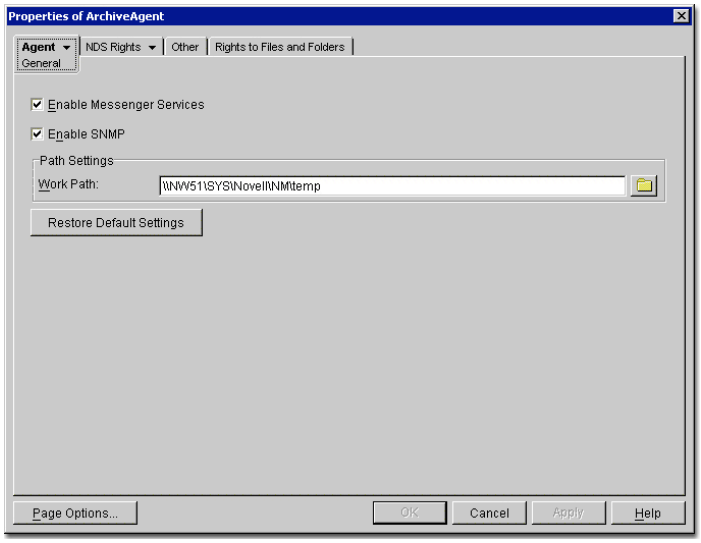
Next, select the **Agent/General** tab. Ensure SNMP is enabled.

Assign a HTTP username and password. This should not be the same as a valid eDirectory account. Write down this information in the work sheet as well. Click **OK** to save your settings. Wait one minute for the GroupWise configuration to propagate. Test it in a web browser by typing *http://ipaddress:httpPort*

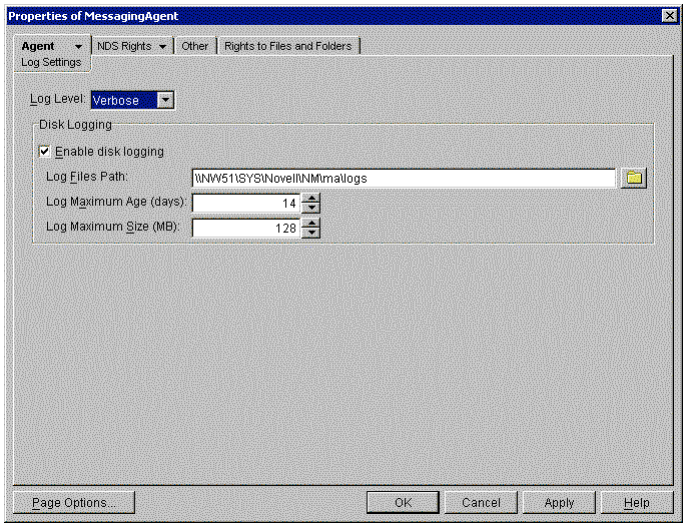
For example if the Archiving agent were running on a server with an IP address of 192.168.2.3, and an HTTP port of 8313:
http://192.168.2.3:8313



You should be prompted for the username and password just assigned. If you are not, recheck your settings in ConsoleOne, and open the agent's startup file to verify that no startup switches override this configuration. Also, try restarting the agent.

- Do not proceed until this is working

Return to ConsoleOne and reopen each of the agents. Go to the **Agent/Log Settings** tab to verify logging to disk is on and set to verbose.



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GroupWise Document Viewer Agent (GroupWise 7.0+ only)

The Document Viewer Agent (GWDVA) is used to convert attachments for viewing in the WebAccess client. Redline 2.5 and above support monitoring this agent. There is no ConsoleOne interface for this agent. Instead, open the GWDVA configuration file in a text editor. This file is normally named gwdva.dva and is located in the same directory that the GroupWise WebAccess Internet Agent (GWINTER) is installed.

Add the following switches manually:

- **/http -** Enable HTTP Interface
- **/httpport**-7439 - HTTP port to listen on (7439 recommended)
- **/httpuser-[username]** - Specify the Username for the HTTP
- **/httppw-[password]** - specify the Password for the HTTP interface
- **/loglevel** - verbose – turns on verbose logging

Save the file and restart the DVA by unloading and reloading the WebAccess Agent. Test by opening a web browser by typing *http://ipaddress:httpPort*. For example if the GWDVA agent were running on a server with an IP address of 192.168.2.3, and an HTTP port of 7439, *http://192.168.2.3:7439*

You should be prompted for the username and password just assigned

- Do not proceed until this is working

GroupWise Notes, Exchange, and Async Gateways

None of these gateways expose the necessary settings in ConsoleOne. These are all configured identically, through manual editing of their startup files via a text editor. Add the following switches manually:

- **/http -** Enable HTTP Interface
- **/httpport**-portnumber - HTTP port to listen on (There are no default ports for these, we suggest 9997,9998, 9999 respectively)
- **/httpuser-[username]** - Specify the Username for the HTTP
- **/httppassword-[password]** - specify the Password for the HTTP interface
- **/loglevel**-verbose – turns on verbose logging

Save the file and restart the agent by unloading and reloading.

Test by opening a web browser by typing *http://ipaddress:httpPort*. For example, if the agent were running on a server with an IP address of 192.168.2.3, and an HTTP port of 9999, *http://192.168.2.3:9999*. You should be prompted for the username and password just assigned

- Do not proceed until this is working

GroupWise API Gateway

The GroupWise API Gateway was introduced in GroupWise 4.1 and has not changed much. Therefore there is no HTTP server to configure; nor is there SNMP support provided. All that is required is that you configure the Logging to be on and be verbose, and note the Log Files path on your Appendix 2 work sheet. Typically this is SYS:\gwdomain\wpgate\api\000.prc.

The logging files path may be in NetWare, UNC, or POSIX format. We recommend that NetWare or UNC path format be used. For notes about using POSIX format (/path1/path2/path3), see Appendix 7.

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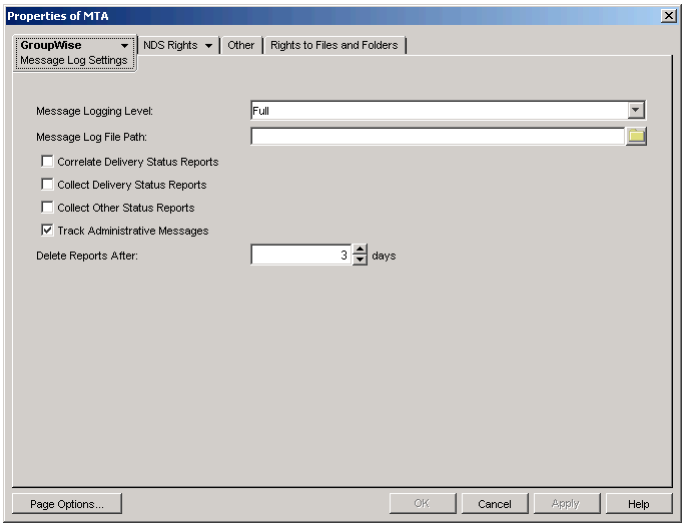
Turning on Message Logging in the GroupWise MTA

The HTTP server and logging for the MTA were enabled earlier in the installation process. A separate feature from logging – called Message Logging – enables sophisticated Message Tracking features in Redline. This is only used with a few reports in Redline, but is recommended.



Open the MTA object in ConsoleOne, and go to the **GroupWise/Message Log Settings** tab.

- Ensure the Message Logging level is set to full
- Then check the Track Administrative Messages checkbox

It may also be prudent to limit how long message logs are kept.

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Enabling GWCHECK Scheduled Events in the GroupWise POA

Why are GWCHECK log files important?

GWCHECK log files are an important source of user information in Redline. In order to get this information in the correct way, some settings have to be configured in ConsoleOne. If these settings are not correct, incomplete data is created, or no data at all. Several reports depend on these (see the Appendices for more information)

GWCHECK always runs on the POA. If administrators want to have information from GWCHECK, they must configure the GWCHECK reports on every POA from which information is needed.

Redline requires three GWCHECK log files. Their default location is: <PathToYourPostOffice>/wpcsout/chk/

If these files are not generated in this folder, Redline will not be able to read and analyze them. The content of these GWCHECK file are different and provides different kind of data for the reports. These three log files are:

gwaudit.log - GWCHECK Audit report

- User Name
- Post Office Name
- UserDB file
- Last Active date/time
- Inactive Days
- License Type

gwstats.log - GWCHECK Expire statistics

- User Name
- Post Office Name
- Full Name
- Mailbox Size
- Last DRN
- User MSG file
- Data Records
- Deleted Records
- Setup Records
- Record Bytes

mbstats.log - GWCHECK Mailbox statistics

- User Name
- Post Office Name
- Full Name
- UserDB file
- Last Active date/time
- License Type
- Messages Total
- Messages InBox
- Messages OutBox
- Messages Basket
- # of Mails
- # of Notes
- # of Tasks
- # of Appointments
- # of Phone Messages
- # of Profiles
- # of Attachments
- # of Search folders
- Mailbox Size
- Last DRN
- Data Records
- Record Bytes
- Max. Mailbox Size
- Mailbox Size Threshold

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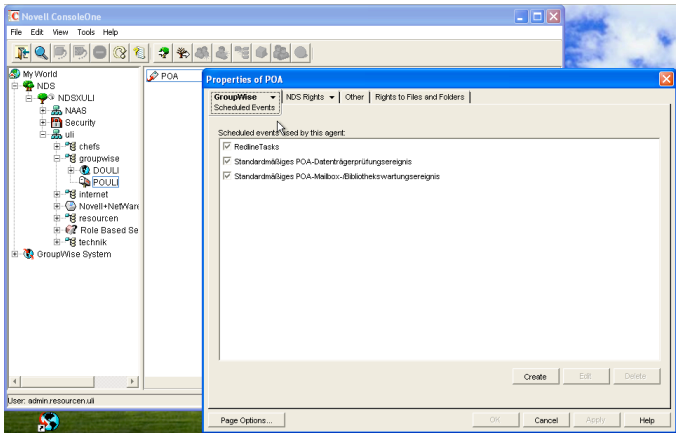
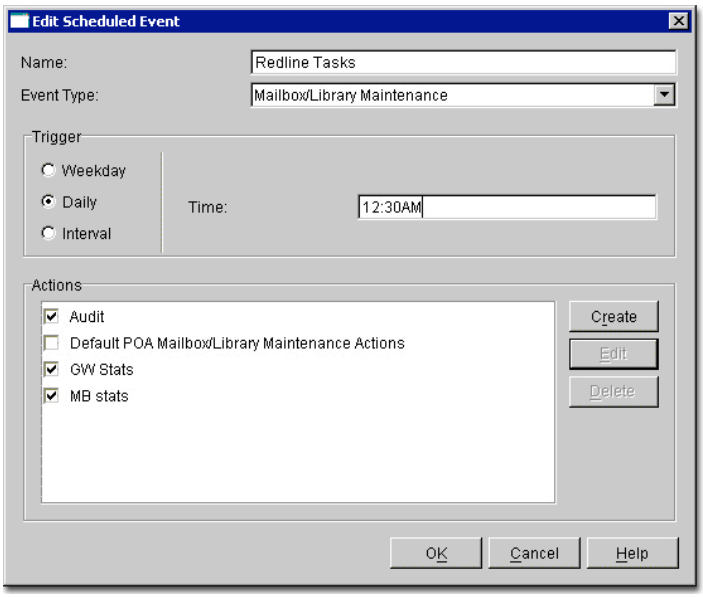
Creating the GWCHECK events



To create the reports, load Console One and open the POA properties. Go to the **GroupWise/Scheduled Events** tab. Three different jobs must be created, each under a collective entry of Redline Tasks.

If the Redline Tasks option doesn't already exist, click **Create**, and enter Name, Event Type, and Trigger information exactly as shown below. This instructs the GroupWise POA to generate these three log files once per day at 12:30 AM. We recommend a dally run of these Redline Tasks.

- **Note** - Until these GWCHECKs run, many reports will be not be populated with data.
- **Note** - Do not use an Interval in GWCHECK - this feature is problematic.



When returning to this screen after configuring the GWCHECK options, ensure the checkbox next to Redline Tasks is enabled.

When creating Redline Tasks, a Default Maintenance task may appear in the Actions frame. It should be left unselected.

Individual GWCheck actions – Audit Report, GW Stats, and MB Stats, must also be created. See the next section for specifics.

Note - Remember to make sure all of the GWCHECK actions are enabled (the checkbox is selected) – when first created. These are disabled by default.

Check the **Results** tab while creating each of the three GWCHECK actions. Make sure that Logfile Results are NOT sent via e-mail to the Administrator. Otherwise the data is not stored to disk, and Redline has no access to it.

- Each GWCHECK action requires verbose logging to be enabled.

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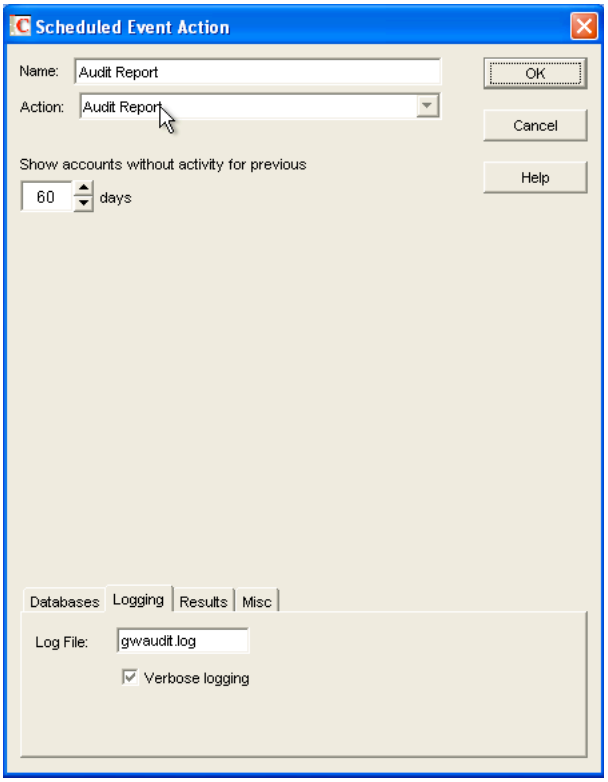
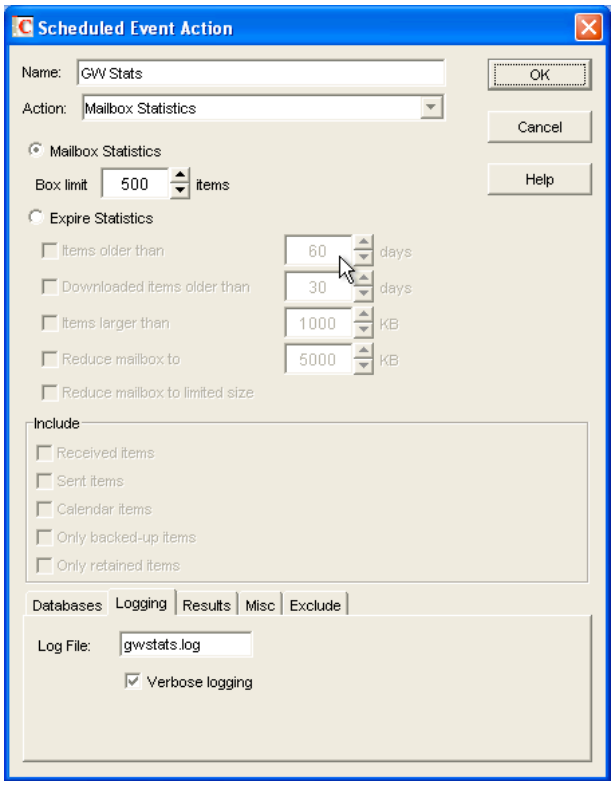
Audit Report (GWAUDIT.LOG)

- For the name, type in **gwaudit**
- Change the Action to **Audit Report**
- Click the **Logging** tab and enter **gwaudit.log** Check the box for **Verbose logging**
- Click the **Results** tab and make sure that nothing is checked
- Click **OK** to confirm your changes or **Cancel** to leave your settings unchanged



Mailbox Statistics (GWSTATS.LOG)

- For the name, type **gwstats**
- Change the Action to **Mailbox Statistics**
- Click the **Logging** tab and enter **gwstats.log** Check the box for **Verbose logging**
- Click the **Results** tab and make sure that nothing is checked
- Click **OK** to confirm your changes or **Cancel** to leave your settings unchanged



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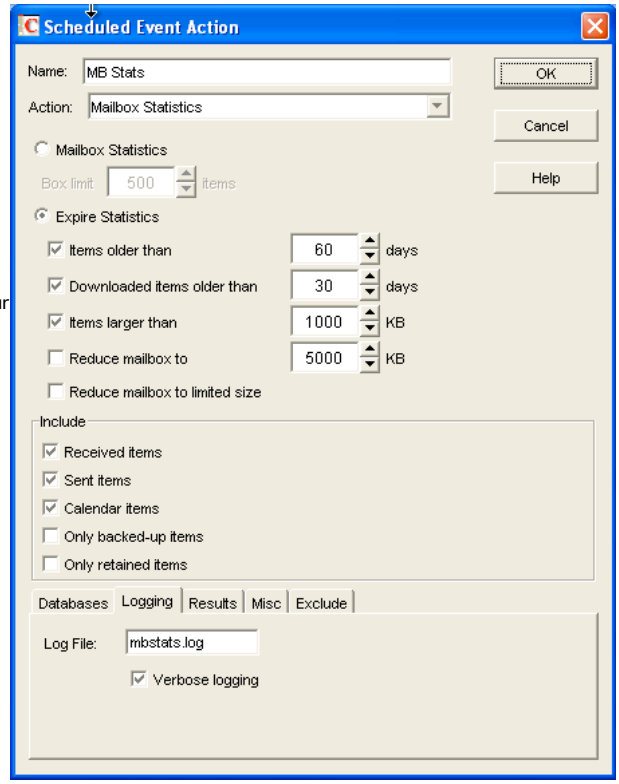
Mailbox analysis (MBSTATS.LOG)

- For the name, type in **mbstats**
- Change the Action to **Mailbox Statistics**
- Click the radio button for **Expire Statistics**
- Click the **Logging** tab and enter **mbstats.log** Check the box for **Verbose logging**
- Click the **Results** tab and make sure that nothing is checked
- Click **OK** to confirm your changes or **Cancel** to leave your settings unchanged

Note: You can use RLCONFIG to check if your Scheduled Events are set up correctly. See the Post Installation Tasks.



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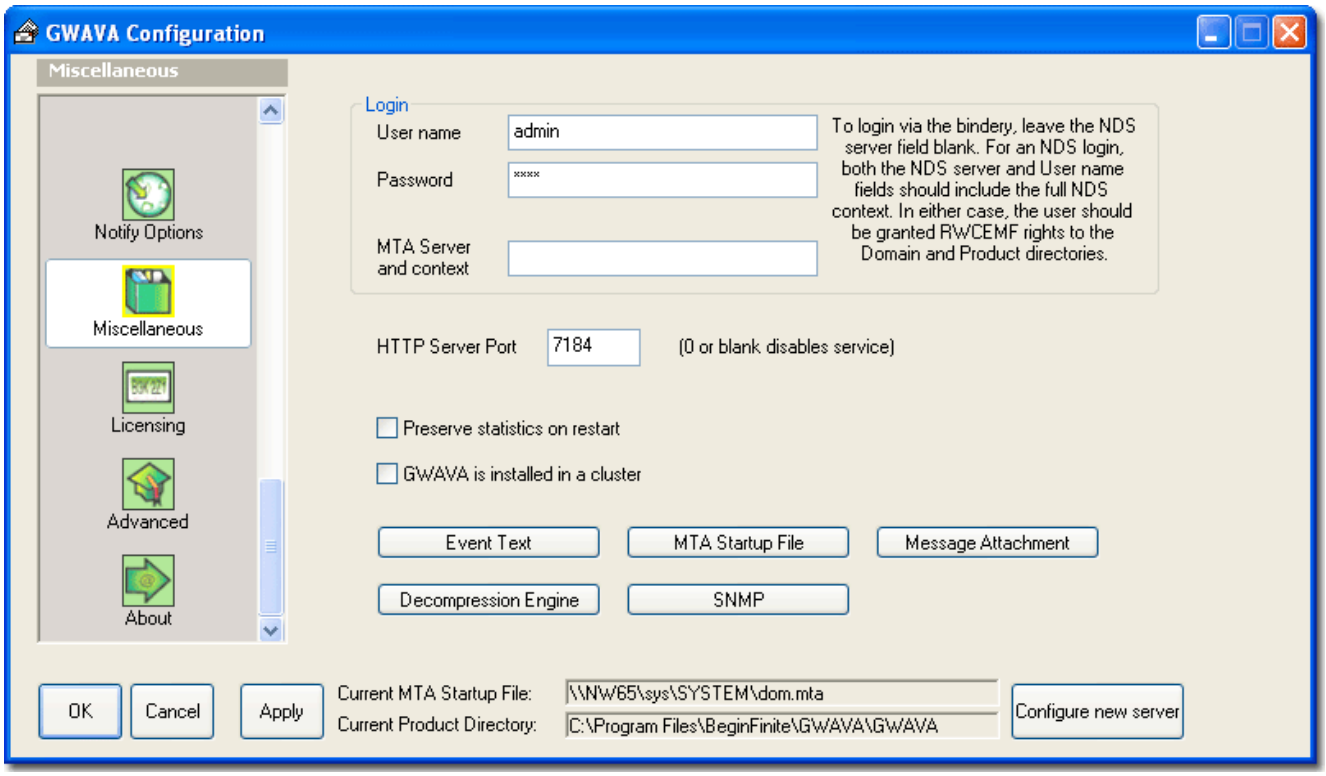
GWAVA Requirements

GWAVA 3.10 and above are supported. GWAVA 3.5 or 3.6 are recommended- some statistics, in particular, SURBL and digest settings are only relevant for GWAVA 3.5 or higher.

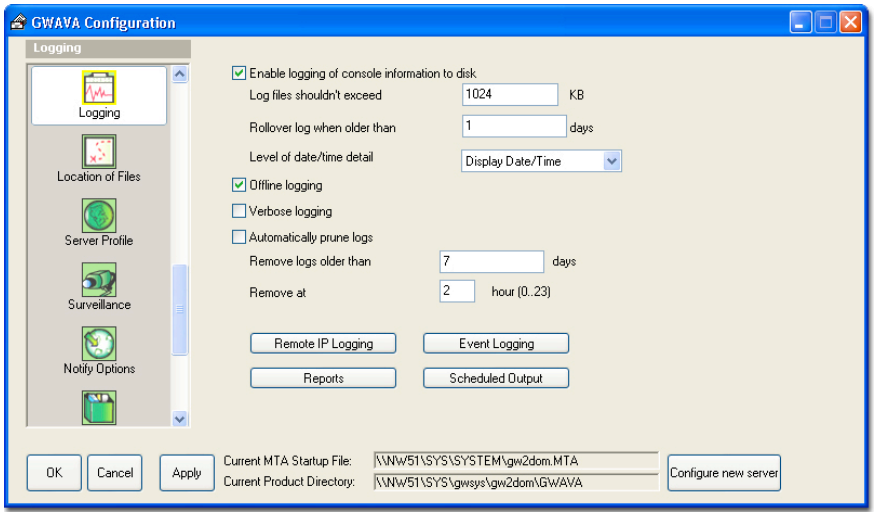


GWAVA contains an embedded HTTP server similar to the GroupWise agents. To enable this server, launch the GWAVA Configuration Program. Select the Miscellaneous tab. Ensure the HTTP Server Port entry contains a valid TCP Port (non-zero). 7184 is the recommended default. This port is needed in the RLAGENT configuration file.

GWAVA does not require authentication information. To test this HTTP server, open a command line interface and type Telnet IP address 7184. For example: Telnet 192.168.2.3 7184 should connect to the server. Several carriage returns will exit the server interface. If there is no connection, recheck GWAVA's settings.

Logging

GWAVA's logging must also be on. Go to the Logging tab, and ensure that the **Enable logging of console information to disk** checkbox is enabled. The **Level of date/time detail** drop-down menu should be set to Display Date/Time.



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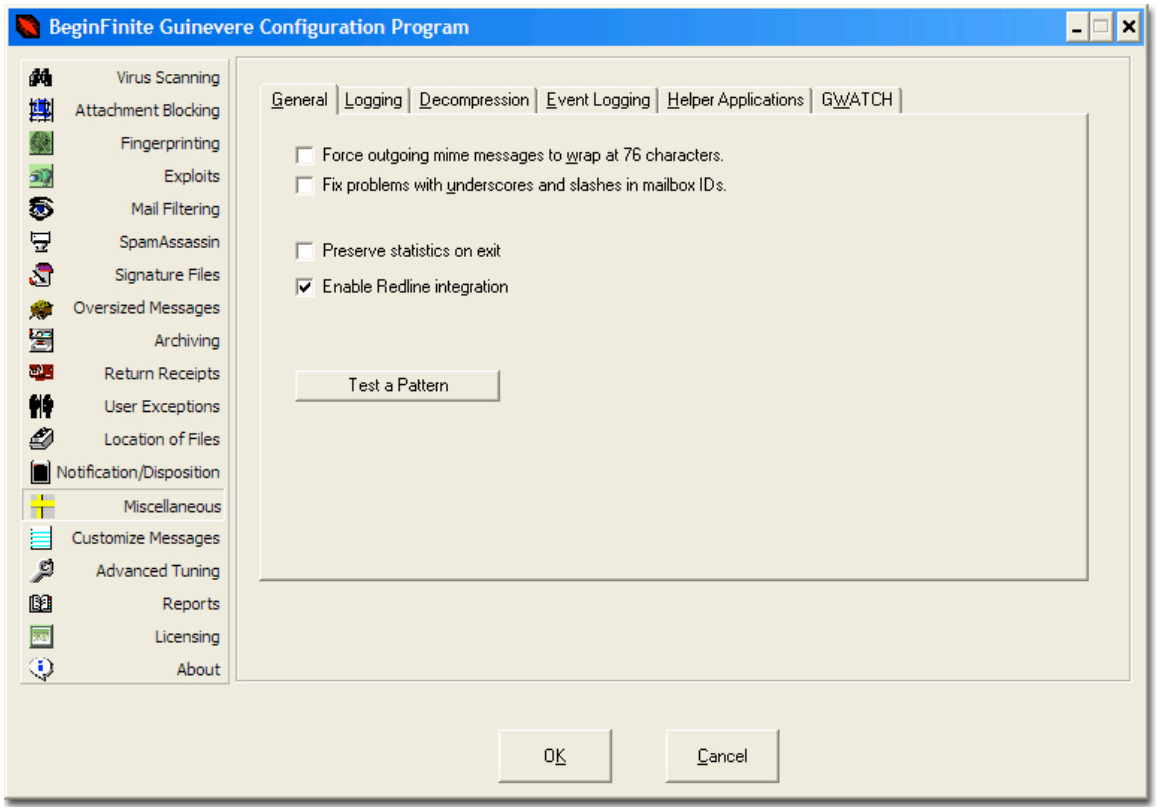
Guinevere Requirements

Guinevere 3 and above are supported. Guinevere 3.2 is recommended. Guinevere does not contain an embedded interface. Instead, the main configuration file for Guinevere and the Event Log files are copied to subdirectories of the SMTP Services directory dynamically.

Launch the Guinevere Configuration Program.



Select the **Miscellaneous** tab.

Ensure that the Enable Redline integration checkbox is selected. An alert will be presented reporting that Event Logging has been turned on and the location will be in the SMTP Services directory.

Go to Location of Files to locate the current SMTP Services directory value. For example, it might be G:\mydomain\wpgate\gwia\third, and this might correspond to a Netware path of SYS:\mydomain\wpgate\gwia\third. Note the directory in the installation work sheet.

The path to your logging files may be Netware, UNC, or POSIX format. If using POSIX on NetWare, see Appendix 7

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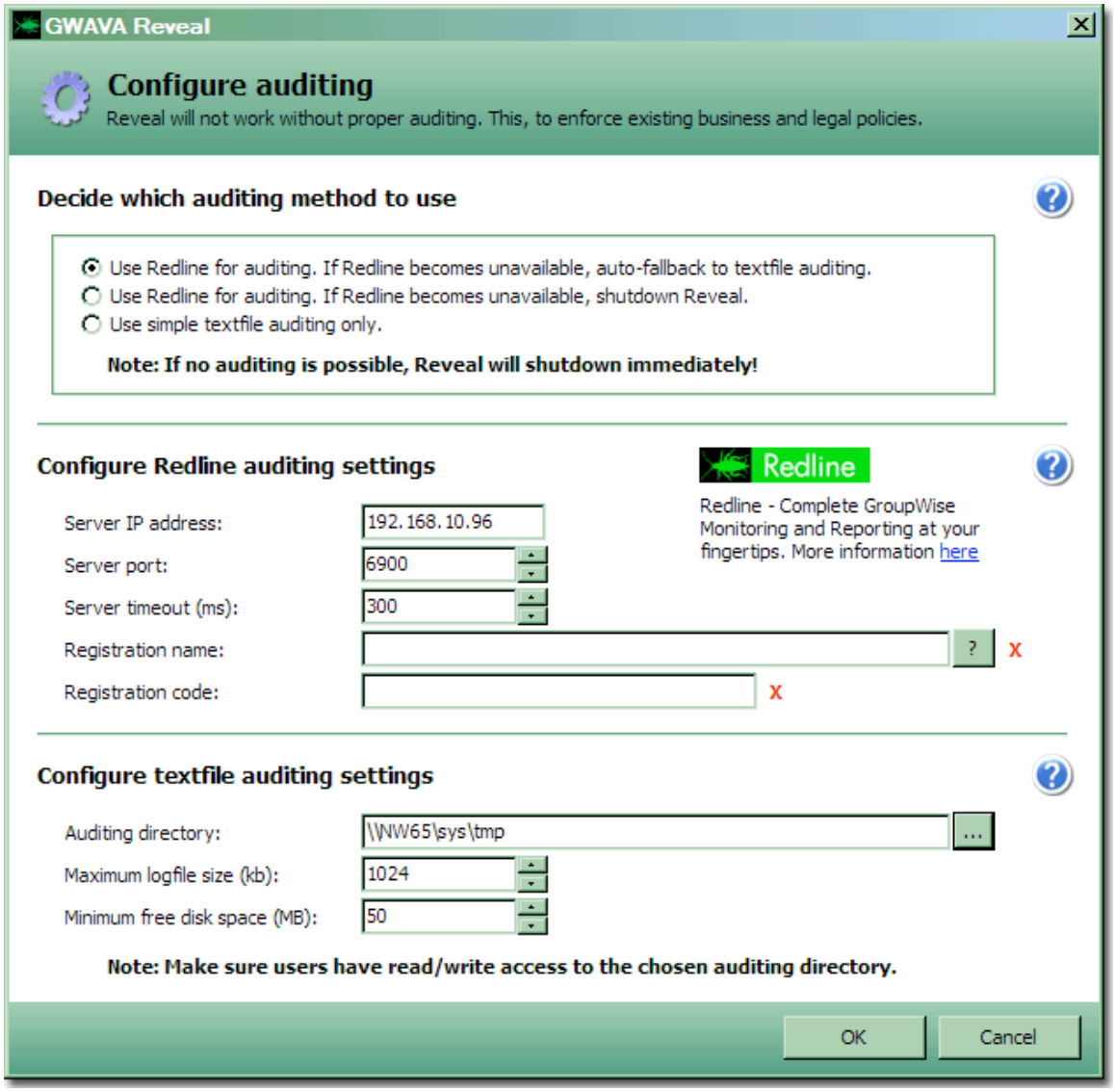
GWAVA Reveal 1.1

Reveal is a powerful tool for examining the contents of a live GroupWise system. Authorized administrators may access any mailbox without special rights. To enable auditing security, GWAVA Reveal 1.1 provides an option to produce auditing information and send it to the RLCENTER automatically.


GWAVA Reveal
Configure auditing
Reveal will not work without proper auditing. This, to enforce existing business and legal policies.
Decide which auditing method to use
Use Redline for auditing. If Redline becomes unavailable, auto-fallback to textfile auditing.
Use Redline for auditing. If Redline becomes unavailable, shutdown Reveal.
Use simple textfile auditing only.
Note: If no auditing is possible, Reveal will shutdown immediately!
Configure Redline auditing settings
Redline
Redline - Complete GroupWise Monitoring and Reporting at your fingertips. More information here
Server IP address:
192.168.10.96
Server port:
6900
Server timeout (ms):
300
Registration name:
Registration code:
Configure textfile auditing settings
Auditing directory:
\\NW65\sys\tmp
Maximum logfile size (kb):
1024
Minimum free disk space (MB):
50
Note: Make sure users have read/write access to the chosen auditing directory.
OK
Cancel

After Redline is installed, in Reveal, go to Administration/Auditing Settings, and click the **Lookup** button. Provide the path to RLCENTER.CONF file of the server running the RLCC. This is typically in /opt/Beginfinite/redline/conf and should automatically populate the rest of the page. Otherwise one must manually enter information such as the Redline Control Center IP Address and Port, as well the Registration information for Redline.

Reveal has can automatically communicate directly with the RLCENTER. It does need to use an RLAGENT at all.

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GWAVA Reload 1.0

GWAVA Reload is a revolutionary new tool for backing up, and accessing multiple data sets of your post offices on the NetWare, Linux and Windows. GWAVA Reload creates 'Hot Backups' that can be accessible to a GroupWise client within minutes.

- GWAVA Reload uses a unique method of post office backup synchronization so that each day's incremental backup is linked to existing data. Each incremental backup only requires that approximately 12 per cent of the post office is replicated during each backup cycle, and yet the data can represent a full GroupWise post office. The GWAVA Reload backup server uses an efficient pull method for backing up data. No software needs to be installed on the servers housing GroupWise post offices.
- The GWAVA Reload Agent backs up GroupWise post offices on the NetWare, Linux and Windows platform. GWAVA Reload also integrates with the GroupWise SmartPurge feature; consequently, post offices can be configured so that users cannot delete mail until GWAVA Reload has backed up the post office.

To configure Reload to operate with Redline, administrators should know the IP address and port of the GWAVA Reload server's HTTP/HTTPS monitoring port. This information is available in the GWAVA Reload Administration menu. Please see the Reload manual for specifics.

Toffa SyncWise 2005

Toffa SyncWise 2005 and later are supported, in all Toffa builds from August 2005 onwards. Redline requires that administrators specify the IP Address and Port that used to query Toffa, exactly the same way as with all the other agents.

SyncWise 2005 provides comprehensive synchronization facilities between Novell GroupWise and SyncML enabled mobile devices. Obviously, the installation and configuration of SyncWise is beyond the scope of this manual; however the general requirements and installation of SyncWise are:

- **Windows 32-bit platform** (Windows NT4, Windows 2000 Professional or Server, Windows XP or Windows 2003 Server)
- **GroupWise client** - SyncWise 2005 communicates with the GroupWise Post Office by way of the GroupWise client software
- **Apache Web Server** - SyncWise 2005 is accessed using HTTP. It requires the use of the freely available Apache web server software.
- **200 MB** of disk space

During installation of Toffa, specify the port that the Toffa web server is running on. Note this for use with Redline. The default is port 80.

NotifyLink 4

Notifylink 4 is supported in all NotifyLink builds from September 2005 onwards. The NotifyLink Enterprise Server for GroupWise requires three components to be installed - the SQL Database, the Web Server and the Messaging Server. The system and server requirements vary depending on the components being installed, and whether or not they are on a single or multiple servers. Obviously, the installation and configuration of NotifyLink systems are beyond the scope of this manual; however, in general, the components that must be installed with a NotifyLink Enterprise Server are:

- Messaging Engine
- Database
- Web Interface
- Device Client

Please consult the NotifyLink 4 documentation for further details.

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Blackberry Enterprise Server

The BlackBerry Enterprise Server components can be installed on one server, or on multiple servers. Obviously, the installation and configuration of BlackBerry servers and clients are beyond the scope of this manual; Some basic GroupWise requirements for BES are:

GroupWise Requirements

- Novell GroupWise messaging server version 6.5 SP1 or later for post offices containing BlackBerry users. The GroupWise messaging server must be installed on a computer different than the computer running the BlackBerry Enterprise Server.
- A trusted application key is generated to enable communication between the BlackBerry Enterprise Server and the primary domain of the GroupWise messaging server. The trusted application key is used by subsequent secondary domains. If there are multiple BlackBerry Enterprise Servers in a BlackBerry Domain, each BlackBerry Enterprise Server uses the same trusted application key to access GroupWise.
- The trusted application key must be provided during the BlackBerry Enterprise Server installation. If a new trusted application key is generated after installing the BlackBerry Enterprise Server, update the BlackBerry Enterprise Server configuration with the new key.

Configuring Blackberry Enterprise Server

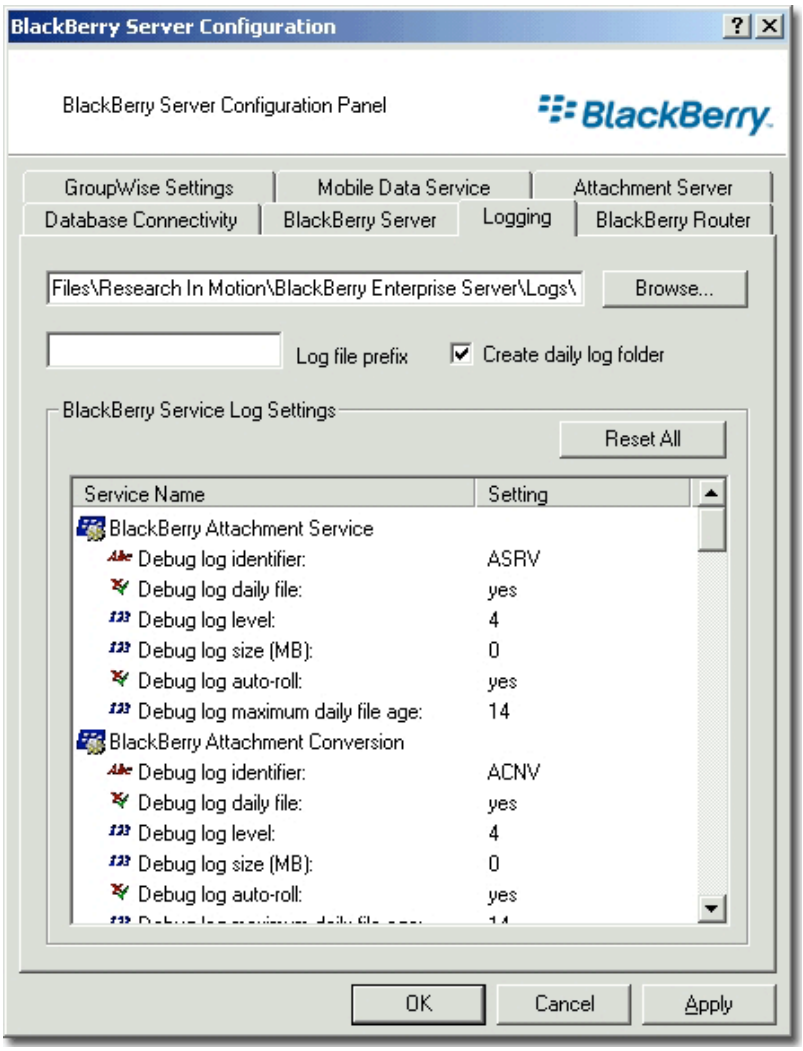
In the Windows Control Panel, select the BlackBerrry Server Configuration panel. Note the Logs directory shown at the top. This is the location that must be specified as the PATH parameter in RLAGENT.

Leave Log File Prefix blank, and ensure the **Create Daily Log Folders** checkbox is enabled

Scroll through the BlackBerry Service Log Settings and set the various services as follows:

- **Debug log identifier** -Leave unchanged
- **Debug log daily file** - Yes
- **Debug log level** - 4
- **Debug Log Size (MB)** - 0 (unlimited size)
- **Debug log auto-roll** - Yes
- **Debug log maximum daily file age** - 7-14 days (0 keeps logs forever)

Reboot the BES server. The log file settings take effect only after reboot, or after restarting all BlackBerry services.



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GroupWise Mobile Server

Before you can monitor any GroupWise Mobile server, copy the file redline.asp to the folder C:\Program Files\Intellisync Mobile Suite\www\diag.

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Installing the Redline Program Files

Before proceeding, it is recommended you read through the Preparing to Install section of this manual so that you have configured all of the components to be integrated with Redline, have gathered all the information needed, and have decided where Redline Control Center and Redline Agents will be installed.

- A Redline Agent (RLAGENT) must be installed locally to every server that contains an integrated component, and you will want one Redline Control Center (RLCENTER)
- Redline Agents communicate via TCP/IP with a specified Redline Control Center(s). By default the Port is 6900
- In turn the user administers Redline by connecting to the Redline Control Center via their web browser, by default on port 6910

Note – Keep your license's Registration Name, Registration Code, and Company Name in a secure location. You will need these will be needed if new RLAGENT or RLCENTER files are installed. If the names and codes are not entered correctly in both the RLAGENT configuration files and the RLCENTER configuration files, the RLAGENT **will not be able to communicate** with the RLCENTER. More discussion on this is provided in the Post-Installation Tasks section. If installing an evaluation, registration codes are generated automatically.

For new installations, your default administrator account is username: admin, password: password.

Redline 1.x users

During the installation, your registration codes will be upgraded automatically, including the CONF files. Note that some of the internal files in Redline have changed between earlier versions of Redline and Redline 2.5. It is strongly advised that administrators take advantage of RLConfig to update their files automatically.

Where Redline Installs Files

Redline installs most files under a root product directory. This varies slightly depending on the operating system:

- **NetWare** sys:\opt\Beginfinite\redline
- **Windows** C:\Program Files\Beginfinite\redline
- **Linux** /opt/Beginfinite/redline

Netware: If you wish to install Redline on a non-SYS volume, install it first on SYS and then follow the instructions in Appendix 6 to migrate Redline to the desired volume. Underneath these directories are the following subdirectories:

- **bin** The main program files are stored here
- **conf** Configuration files, in particular
- **RLAGENT.CONF** (for RLAGENT) and RLCENTER.CONF (for RLCENTER)
- **In Windows** RLAGENT.CONF is called RLAGWIN.CONF
- **db** Database files. A schemas subdirectory contains the individual component schemas, the reports directory contains any automatically generated reports, and the infodb directory contains the help files defining each alert/threshold.
- **logs** Log files for the agents (RLAC.LOG, RLAG.LOG)
- **cc-templates** RLCENTER only. The web server template files
- **imp** RLCENTER only. A file used by RLCENTER for importing log files. You can use this yourself to manually import log files from periods before Redline was installed. Copy the files into this directory

Back up these directories before upgrading, particularly the CONF subdirectory. Other changes are OS specific:

- **NetWare** The autoexec.ncf file will be altered to automatically add sys:\opt\Beginfinite\redline\bin to the search path, and to Run RLAG.NCF (RLAGENT startup) and RLCC.NCF. No files are installed to SYS:SYSTEM or SYS:PUBLIC
- **Windows** Desktop icons and Start menu icons will be created containing shortcuts to run the RLAGENT program, and a component of the RLCONFIG configuration program (MSCOMCTL.OCX) is installed to your Windows system directories.
- **Linux** During the manual installation, you'll copy startup scripts to /etc/init.d, and a shared library to /lib. The RPM does this automatically for you.

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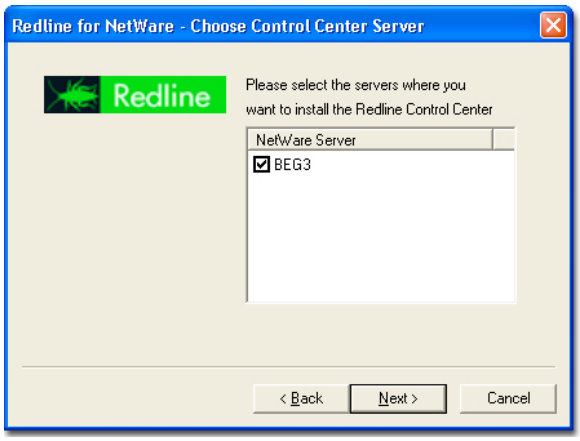
NetWare

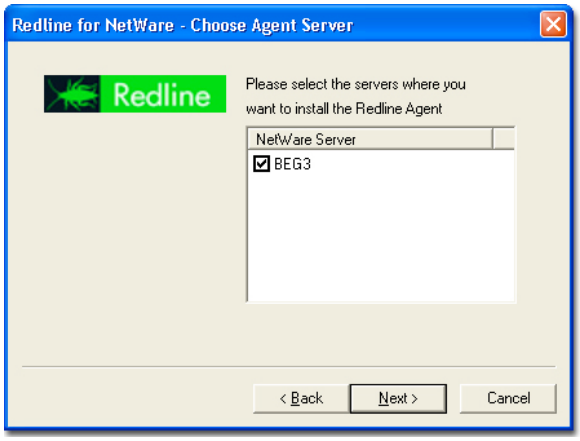
After installing the program files, see Post Installation Tasks, before running RLCENTER or RLAGENT. You can install Redline using a Windows based installer (Windows, NetWare). A Netware based installer is also available. You could also manually install the files, though this is not recommended.

To move Redline to a non SYS volume in NetWare, see the instructions in Appendix 6.


Redline for NetWare - Choose Control Center Server
Redline
Please select the servers where you want to install the Redline Control Center
NetWare Server
BEG3
< Back
Next >
Cancel

NetWare install using the Windows-based Installer

If you have GroupWise running primarily on NetWare and want to install via a centralized Windows desktop, unzip the Redline download package, and open the NetWare folder and run the setup.exe. The first screen is informational. Click **Next** to continue to the license agreement. You must accept the license agreement in order to continue with the installation process. Enable the **Accept Licence Agreement** checkbox to accept the license agreement and click **Next** when ready or **Cancel** to halt the installation process. Choosing **Back** returns you to the previous screen.


Redline for NetWare - Choose Agent Server
Redline
Please select the servers where you want to install the Redline Agent
NetWare Server
BEG3
< Back
Next >
Cancel

Select the server for installation.

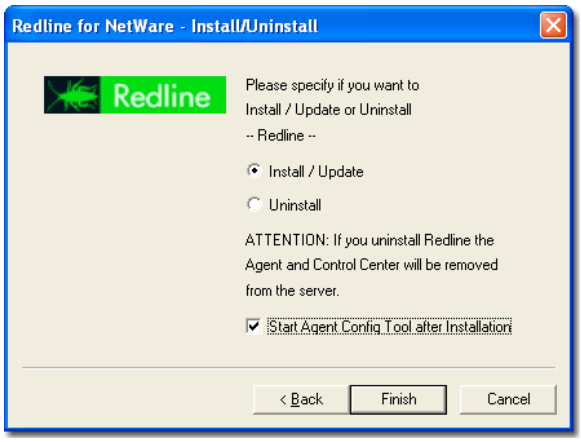
Select a server for installing the Redline Control Center, if you want to install RLCENTER.

Click **Next** to continue, **Back** to return to the previous screen, or **Cancel** to leave your settings unchanged.

Select the server for installation continued

Select a server for installing the Redline Agent, if you want to install RLAGENT.

Click **Next** to continue, **Back** to return to the previous screen, or **Cancel** to leave your settings unchanged.


Redline for NetWare - Install/Uninstall
Redline
Please specify if you want to Install / Update or Uninstall
-- Redline --
Install / Update
Uninstall
ATTENTION: If you uninstall Redline the Agent and Control Center will be removed from the server.
Start Agent Config Tool after Installation
< Back
Finish
Cancel

Run the installer/uninstaller

Choose **Install/Upgrade** or **Uninstall** to remove the Redline Agent and the Redline Control Center from your servers. Click **Finish** to confirm your choices. Click **Back** to continue or **Cancel** to leave your settings unchanged.

The Start Agent Config Tool after Installation checkbox is a new feature in Redline 2.5. RLConfig configures Redline installations on Windows and NetWare. It is highly recommended that Redline installations be made using this tool.

Once the installation process has been completed, a reminder to change the default account name and password is presented. Click **OK** to continue.

Please see the Post Installation Tasks section for further configuration information.

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Using the NetWare based Installer

- Copy the installation package to a location accessible to the server
- Using NWCONFIG, choose **Install a new product package**, when prompted for a location, use: <path to installation>\netware.) This is a path to a Redline.ips., which is the Netware installer script
- Manually configure the Redline Configuration files, or install RLCONFIG manually by running RLCSETUP on a Windows workstation.
- Please see the Post Installation Tasks section for further configuration information

Manual NetWare installation

This is generally unnecessary and is discouraged except for troubleshooting purposes.

- From a Windows workstation, unzip the Redline package to the workstation desktop
- Under the Netware folder, you will find a Redline folder. Inside that folder is redline.zip. Unzip it, and a tree of files will be created, starting with the opt folder
- Back up the existing CONF files first if you previously configured Redline so they can be restored
- Move the opt folder and all subdirectories to the SYS volume of the NetWare, overwriting other files
- Please see the Post Installation tasks for further configuration information

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Linux

RPM installation

Redline now offers an automated Linux installation process. From the Linux directory in the Redline folder, double click the RPM file. You will then be asked to confirm the installation request. From this point on, the RPM file launches every script contained within the file on its own. To launch this file from the command line, type rpm – U and then the package name. A tarball is also included in the directory for administrators wishing to install Redline in a Linux environment manually, with instructions below.

RLCENTER and RLAGENT startup scripts will automatically be copied to /etc/init.d and set up with the appropriate runlevel symbolic links. Please see the Post Installation Tasks section for further configuration information.

Manual installation

The main Redline files are stored in /opt/beginfinite/redline. Shared libraries must be located in /lib or /usr/lib. Every time a library is copied to the /lib directory or /usr/lib directory the administrator has to inform the system about the change. The command ldconfig accomplishes this. Redline has one shared library, called libredline.so.2.5.0. Copy this file to /lib and execute the command ldconfig to avoid rebooting.

On Linux, applications are started and stopped with scripts located in /etc/init.d. Redline has a script for the agent and the control center. The script can be used with parameters modified to meet the needs of your installation. If you type /etc/init.d/rlagent or .../rlcenter without a command line parameter, all possible parameters will be listed.

- Unzip the Redline package on your Linux desktop
- Open the linux.kernel26 folder
- You will find a Redline folder inside. Under the Redline folder is a redline.tar.gz (tarball). Extract it. (with KDE desktop this is a matter of right clicking, Actions/Extract here or use a command line (tar -zxvf redline.tar.gz).
- There are three subdirectories, lib, opt, and etc
  - etc/init.d ..... there are two scripts rlcenter, rlagent that can be copied to the corresponding to /etc/init.d on your server. You must also create the appropriate symbolic links in the run level directories for Redline to automatically run on startup on your Linux system
  - /lib .... copy this library to /lib on the server
  - /opt/beginfinite .... copy this folder and its contents to /opt/beginfinite on the server. Make sure you have backed up your CONF files, if you are installing over a previous install, and then restore them
- Finally, create a symbolic link by typing: ln -s /lib/libredline.so.2.5.0 /lib/libredline.so.2 and run ldconfig to register the shared object library

Please see the Post Installation Tasks section for further configuration information.

Using a Linux RLCENTER to monitor NetWare or Windows servers

Normally in this situation, you simply install RLCENTER on the Linux box, and RLAGENT on each of the NetWare or Windows boxes. However, some customers have requested a 'unified' approach, with only a single RLCENTER and a single RLAGENT installation. This is possible, since Linux servers can mount Windows and NetWare volumes as well as native Linux volumes.

Redline 2.5 supports full monitoring of a NetWare or Windows server by mounting the volumes via SAMBA, CIFS or NCPMount. Then adding the paths to the pathtab. This allows the monitoring of GroupWise systems via a Linux installation.

Configuration

- Create a directory on the Linux server representing the volume of the server to be monitored. For example, if GroupWise was installed on installed on Volume
- GWISE and your NetWare server is called MYSEREVR, the folder might be named /mynwgw on the Linux box.
- The folder must be lower case
- Create the following entry in /etc/pathtab on LINUX (NOT NetWare):/mynwgw myserver/gwise:
- Mount the NetWare volume in the folder created in your Linux box via NCP or CIFS. DO NOT use NFS.
- Start the Agent on your Linux server.

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Windows

You must use the Windows-based installer to install Redline. Only RLAGENT is provided for the Windows platform – you must run RLCENTER on a NetWare or Linux server. After installing the program files, see the Post Installation Tasks section of the documentation before running RLCENTER or RLAGENT.

- Unzip the Redline package onto your Windows desktop.
- Open the Windows folder, and double-click SETUP.EXE
- Click through the installation process by selecting **Next**
- At the end, there is a checkbox (selected by default) for running RLCONFIG, the configuration tool for RLAGENT.

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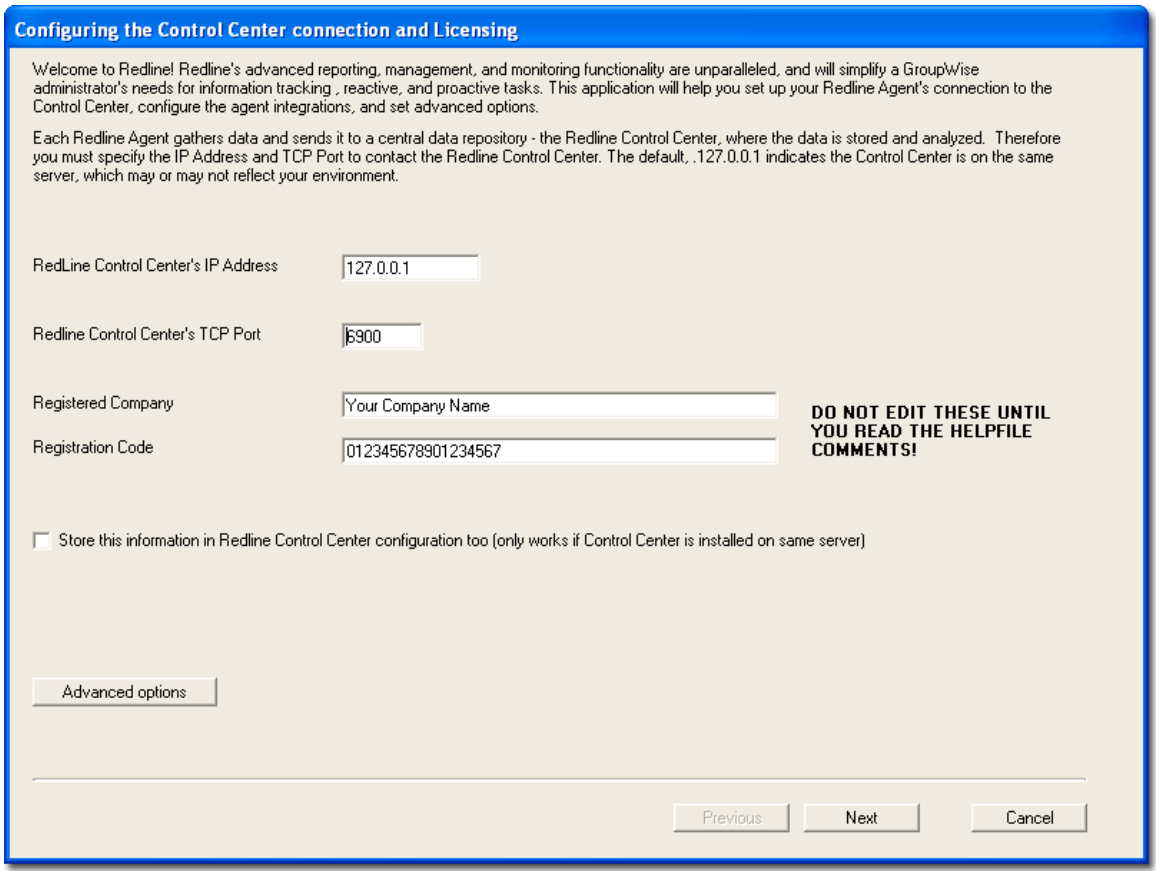
Post-Installation Tasks

The tasks to be done are to first configure the Redline Agent, and then the Control Center. In general, we recommend using RLCONFIG to configure the Redline Agent. However manual configuration is possible (and required currently for Linux). The Redline Control Center usually requires no special configuration unless you need to set up the Licensing information (for a licensed product). See Interlude: Licensing later in this section for information about this.

Appendix 8 discusses the manual configuration of Redline configuration files.

RLCONFIG: Introduction

Redline 2.5 now includes an automated configuration tool for installing Redline for NetWare and Windows installations, reducing the amount of time needed to troubleshoot an installation. RLConfig presents all main fields and agent creation forms in one location, eliminating the need to create individual entries manually as with previous versions of Redline. The configuration tool then conducts basic testing to ensure that the integrated components are setup correctly.


Configuring the Control Center connection and Licensing
Welcome to Redline! Redline's advanced reporting, management, and monitoring functionality are unparalleled, and will simplify a GroupWise administrator's needs for information tracking , reactive, and proactive tasks. This application will help you set up your Redline Agent's connection to the Control Center, configure the agent integrations, and set advanced options.
Each Redline Agent gathers data and sends it to a central data repository - the Redline Control Center, where the data is stored and analyzed. Therefore you must specify the IP Address and TCP Port to contact the Redline Control Center. The default, .127.0.0.1 indicates the Control Center is on the same server, which may or may not reflect your environment.
RedLine Control Center's IP Address
127.0.0.1
Redline Control Center's TCP Port
6900
Registered Company
Your Company Name
Registration Code
012345678901234567
DO NOT EDIT THESE UNTIL YOU READ THE HELPFILE COMMENTS!
Store this information in Redline Control Center configuration too (only works if Control Center is installed on same server)
Advanced options
Previous
Next
Cancel

With RLConfig, administrators can

- Add
- Edit
- Change
- Test

Each Redline Agent gathers data from integrated agents (such as GroupWise or GWAVA) and sends it to a central data repository - the Redline Control Center - where the data is stored and analyzed. One Redline agent must be installed on each server with an integrated agent; however, typically only one or two Redline Control Centers (dependent on your WAN configuration) will be created on a network.

The Redline Configuration application walks administrators through the configuration steps needed to set up a basic Redline installation on their messaging networks. The first screen provides administrators with an opportunity to look at the basic licensing and the information necessary for the Redline Agent to connect to its Control Center.

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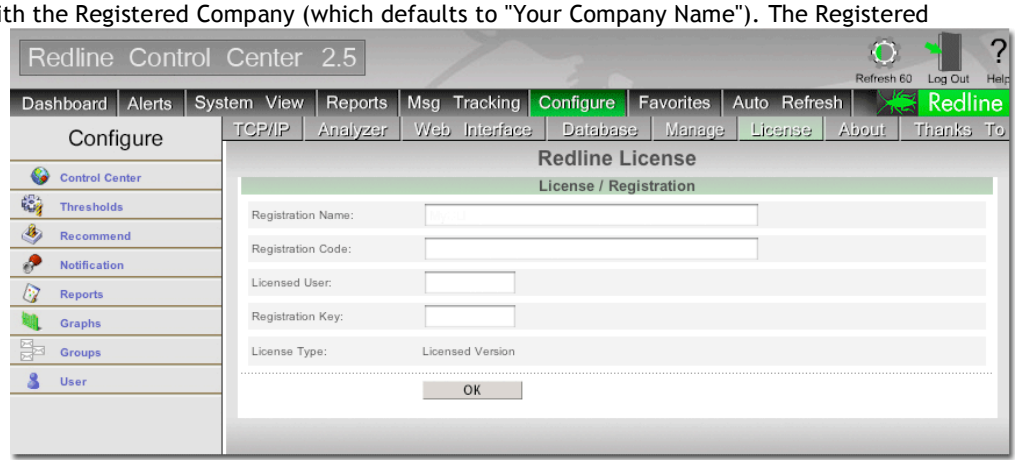
- Redline Control Center's IP - Specify the IP Address and TCP Port the Redline Agent uses to contact the Redline Control Center. The default setting is 127.0.0.1, which will only work correctly when the Redline Control Center is running on the same server as this Redline Agent.
- Redline Control Center's TCP port - The default TCP port is 6900. Normally this will not have to be changed. **If you do, be sure to update the Redline Control Center using the web interface.**
- Company Registration and Company Code – Do NOT edit these unless instructed by GWAVA licensing. If these pieces of information are correct or do not match the information configured in the Redline Control Center Web Interface, the Redline Agent will **NOT** be allowed to connect to the Control Center!

Interlude: Licensing

Upon installation, a special 30 day Registration Code was generated for temporary use on all the Control Centers and Redline Agents, along with the Registered Company (which defaults to "Your Company Name"). The Registered Company field can be changed but make certain every Control Center and Redline Agent configuration file is updated also. RLCONFIG can be used to update the Redline Agent's configuration file, as discussed in the previous section, and the Control Center Web UI to update the Control Center Configuration File



When you purchase Redline, you will receive a new Registration Code plus a Registration Key. The Code must be on all Redline Control Center and Agent installs. The Key is used only by the Control Center and can be installed using the Configuration section of the web interface.

- Log in using the web interface
- Click the **Configure** tab
- Click the **License** tab
- Enter the Registration information.
- Ensure all Redline Agents are updated with this information as well

Both the Redline Agent and the Redline Control Center use the Registered Company and Registration Code information for two purposes:

- The Redline Agent uses these values as an encryption key when communicating with the Control Center. The Control Center has its own copy of the above information, stored in RLAGENT.CONF. If the two do not match, the Redline Agent is unable to contact the Control Center and generates an error on the Redline Agent console.
- These values are also used for license enforcement by the Redline Control Center, along the Registration Key. The Control Center may determine a license is invalid or the evaluation license has expired. In this case, the Redline Agent will be able to contact the Control Center, but none of the data will be forwarded to the Control Center. An error is generated, this time on both the Control Center and Redline Agent's consoles.

Note – Enabling **The Store this information in Redline Control Center configuration too** checkbox saves the licensing and connection information to the Redline Control Center's configuration file as well, presenting the opportunity to enter the Registration Key as well. This only functions correctly if the Redline Control Center is running on the same server as the Redline Agent that you are currently configuring. Otherwise, use the Web UI to update this information.

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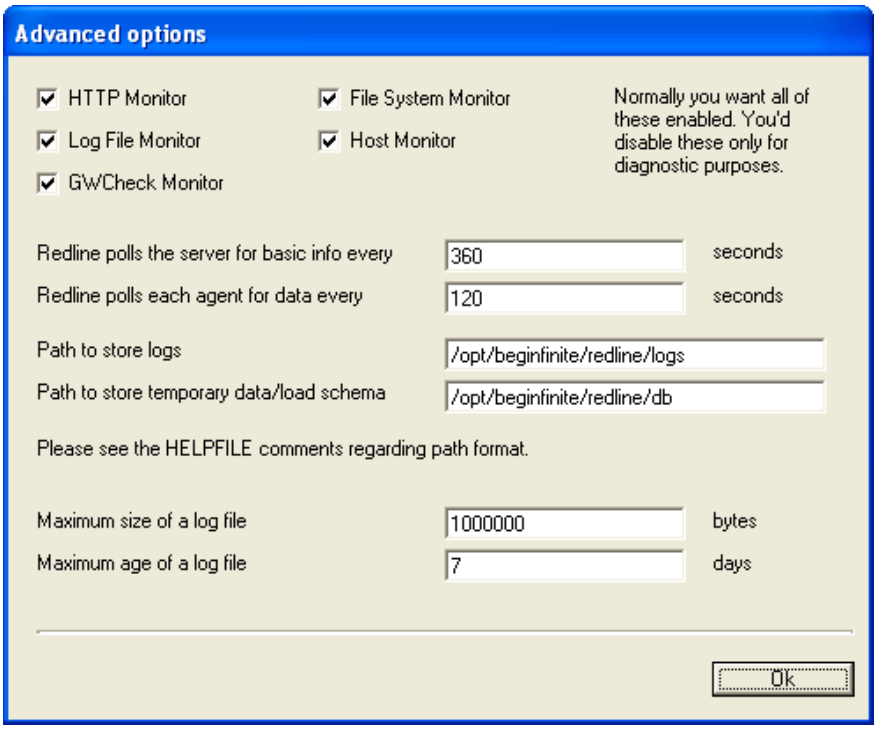
Advanced Options

This presents a dialogue box for configuring settings that very few Redline administrators will ever need to adjust, except during diagnostic troubleshooting. The Redline Agent actually contains subprograms, called monitors, each of which performs a specific task. All are enabled by default.

- **HTTP** - Probably the most important monitor, it connects to all integrated agents containing HTTP servers and gathers information from them.
- **File System** - This collects information regarding directories, files, volumes, and disk space.
- **Log File** - This regularly analyzes log files of individual agents. This is useful, because even with integrated agents with HTTP server functions, there is often valuable diagnostic information available only in the agent's log file.
- **Host** - This collects hardware information such as the server's RAM, CPU, network cards, etc. It is responsible for updating the server-specific items in the Control Center.
- **GWCheck** - This is specific for the POA integration, and grabs and analyzes the GWCHECK reports. All Post Office Agents must be configured to produce special GWCHECK reports for Redline.



Additional configuration fields on this screen include the **Redline polls the server for basic info every** and **Redline polls each agent for data every** fields. These set the time intervals for when the Redline Agent requests information. The defaults are 360 and 120 seconds respectively.

The Redline Agent has two configurable directory paths on this screen: the **Path to Store Logs** and the **Path to store temporary data/load schema**. The Log Path is where the Redline Agent stores log files. The current file is named rlag.log and contains detailed information about what the Redline Agent's operations. Data is in format rlag.yyyymmdd-hhmmss.log. The default is /opt/beginfinite/redline/logs on Linux and NetWare, and %ProgramFiles%\beginfinite\redline\logs on Windows.

The Data path is where data is stored here temporarily before forwarding to the Control Center. It is also from where the schema files are loaded. The default is /opt/beginfinite/redline/db on Linux and NetWare, and %ProgramFiles%\beginfinite\redline\db on Windows.

Note: For NetWare, these must be in POSIX format. See Appendix 7 for more discussion on this. In general, we recommend that you move the entire Redline tree (Appendix 6 has step-by-step instructions) instead of changing these parameters.

Click **OK** to continue.

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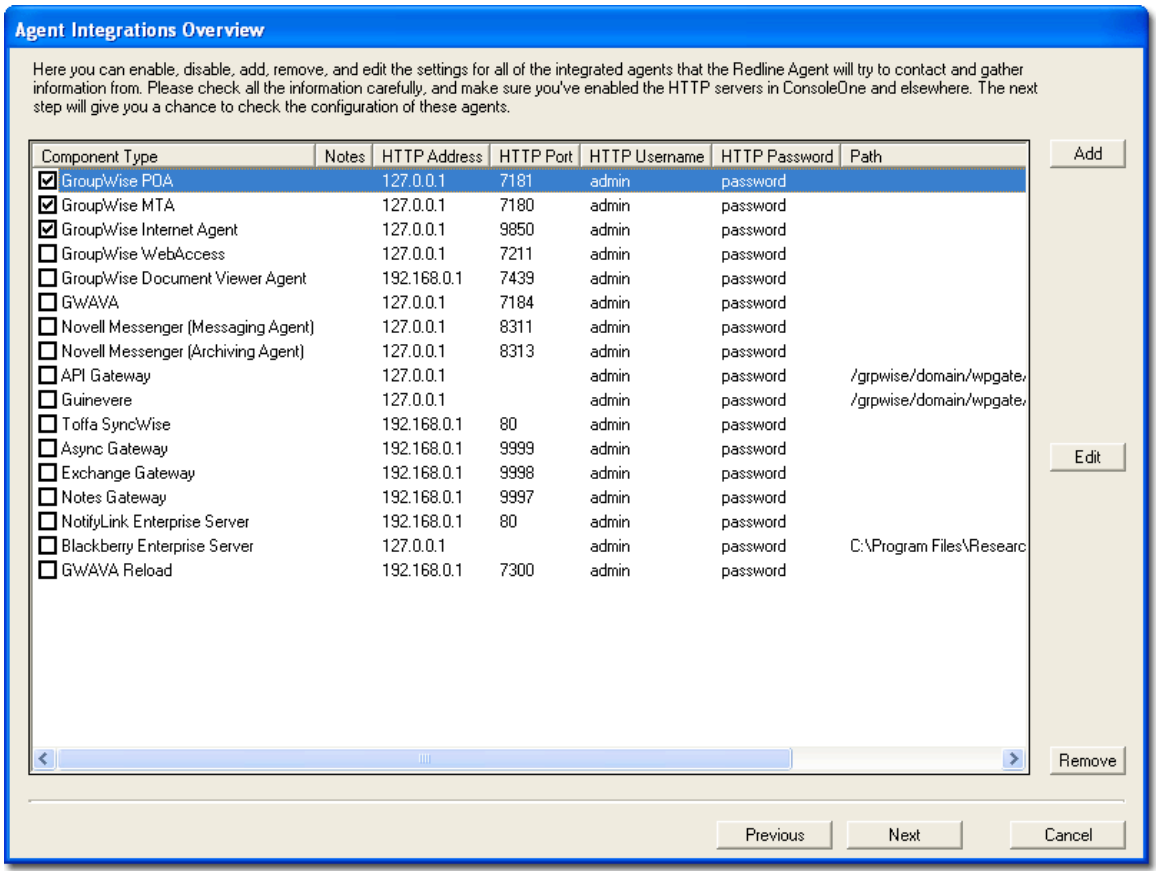
Agent Integrations overview


Agent Integrations Overview
Here you can enable, disable, add, remove, and edit the settings for all of the integrated agents that the Redline Agent will try to contact and gather information from. Please check all the information carefully, and make sure you've enabled the HTTP servers in ConsoleOne and elsewhere. The next step will give you a chance to check the configuration of these agents.
Component Type | Notes | HTTP Address | HTTP Port | HTTP Username | HTTP Password | Path
GroupWise POA 127.0.0.1 7181 admin password
GroupWise MTA 127.0.0.1 7180 admin password
GroupWise Internet Agent 127.0.0.1 9850 admin password
GroupWise WebAccess 127.0.0.1 7211 admin password
GroupWise Document Viewer Agent 192.168.0.1 7439 admin password
GWAVA 127.0.0.1 7184 admin password
Novell Messenger (Messaging Agent) 127.0.0.1 8311 admin password
Novell Messenger (Archiving Agent) 127.0.0.1 8313 admin password
API Gateway 127.0.0.1 admin password /grpwise/domain/wpgate/
Guinevere 127.0.0.1 admin password /grpwise/domain/wpgate/
Toffa SyncWise 192.168.0.1 80 admin password
Async Gateway 192.168.0.1 9999 admin password
Exchange Gateway 192.168.0.1 9998 admin password
Notes Gateway 192.168.0.1 9997 admin password
NotifyLink Enterprise Server 192.168.0.1 80 admin password
Blackberry Enterprise Server 127.0.0.1 admin password C:\Program Files\Researc
GWAVA Reload 192.168.0.1 7300 admin password
Add
Edit
Remove
Previous
Next
Cancel

The Redline Agent regularly polls integrated agents (such as the GroupWise MTA, GroupWise POA, Beginfinite GWAVA, and Toffa SyncWise) to obtain their current status and settings. The administrator must instruct the Redline Agent which integrated agents to poll, and how to contact them (via HTTP or direct file access). The configuration of these agents was discussed elsewhere in this manual. It is strongly recommended that you read that section first, and perform the tasks require to enable the HTTP engines, verbose logging, etc. Administrators can enable/disable and Add/Edit/Remove agents here.

To connect via HTTP, the preferred method, the administrator provides the IP address, port, and the username/password to contact the agent via HTTP. For the HTTP connection to function properly, three requirements must be fulfilled:

- The integrated agent must have an HTTP server interface. All Redline integrated agents do, except for the GroupWise API Gateway, Beginfinite Guinevere, and the BlackBerry Enterprise Server.
- The HTTP server interface must be enabled and configured at the integrated agent, usually with ConsoleOne.
- The integrated agent must be added to the Redline Agent configuration and the HTTP server information provided.

For integrated agents such as BES or Guinevere that do not have HTTP interfaces, the PATH to the core agent files is provided, and a Redline Agent running locally on the same machine obtains the needed information.

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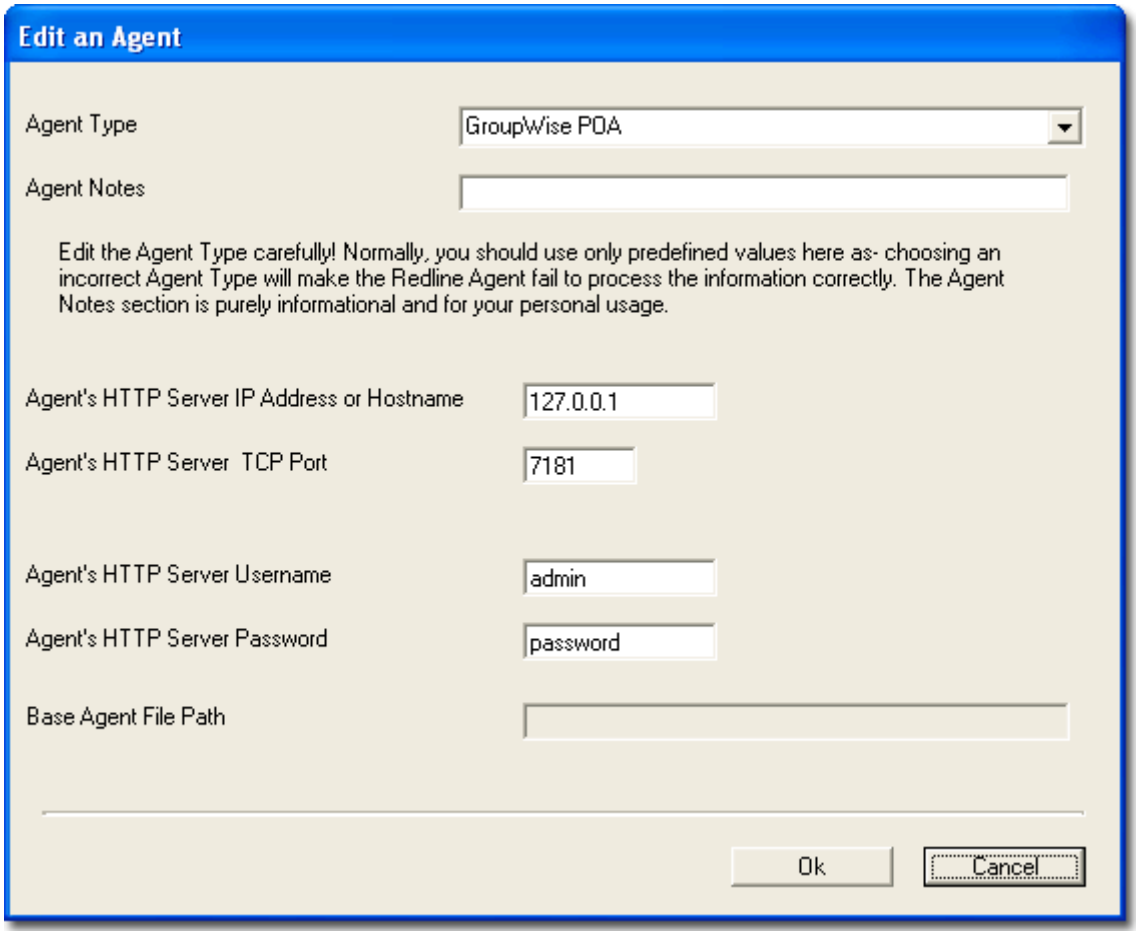
Adding/Editing an Integrated Agent


Edit an Agent
Agent Type
GroupWise POA
Agent Notes
Edit the Agent Type carefully! Normally, you should use only predefined values here as- choosing an incorrect Agent Type will make the Redline Agent fail to process the information correctly. The Agent Notes section is purely informational and for your personal usage.
Agent's HTTP Server IP Address or Hostname
127.0.0.1
Agent's HTTP Server TCP Port
7181
Agent's HTTP Server Username
admin
Agent's HTTP Server Password
password
Base Agent File Path
Ok
Cancel

As discussed in the Agent Integration Overview, the Redline Agent regularly polls integrated agents such as the components of GroupWise to obtain status and settings information. HTTP server integration, when available, is preferable.

On this screen (displayed when you click **Add** or **Edit**), the integrated agent is configured fully for operation.

- Agent Type - This is determined by selecting the appropriate choice from the pull-down menu. After this is done, the following will be done automatically:
  - The default HTTP port, if any, for the integrated agent is entered. This is helpful if no-one has ever changed the default HTTP port.
  - The default base path for the integrated agent is entered if needed.
  - If the agent type normally uses HTTP server integration, the path will be grayed out (but still editable). If the agent type normally uses a base path (direct file access), the HTTP port, username, and password will be grayed out (but still editable).
  - Note that administrators may enter an agent type not listed by typing directly into the text box. Doing so is strongly discouraged (and the program will warn you about this)! It is allowed strictly for the convenience of adding special one-off integrations in-between formal releases.
- **Agent Notes** - An optional informational field. This is currently only displayed in RLCONFiG; it is not used by RLCENTER at all.
- **HTTP Parameters** - There are four parameters that you need to supply for each HTTP server integration: the IP address/Hostname and the Port of the HTTP server integration, as well as the username/password combination needed for access. (Not all integrated agents currently require authentication. For example, NotifyLink, Toffa SyncWise, and Beginfinite GWAVA 3 do not. In these cases, enter whatever you'd like. It can be helpful to input the IP address of the agent even if it lacks an HTTP server, because this information is displayed in RLCENTER.
- **Base Agent File Path** - Some integrated agents, such as the BlackBerry Enterprise Server, and Beginfinite Guinevere, rely primarily on direct file access to the machine running the integrated agent. For these integrations, enter the path here. The user manual will provide more detailed information. It is important to note that the format of the paths depends on which operating system the Redline Agent is running on:
  - In Windows, the path format can be in UNC or mapped drive format. (\\server\volume\path or drive:\path)
  - On Linux, the path must be in POSIX format (/path1/path2).
  - On NetWare the format may be UNC, POSIX, or NetWare (server/volume:path)

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Testing using RLConfig

From this screen, administrators can learn whether the configured HTTP server integrated agents are functioning correctly. Click the **Test Agents** button, and shortly thereafter a summary of all tested (and untested agents) is presented.

- The agent was tested and functioned perfectly
- The agent was tested, but there were authentication issues
- The agent was tested, but the workstation couldn't connect to the agent. This could occur because the agent doesn't have the HTTP server enabled. Or maybe the IP address or hostname was incorrect. Or possibly a firewall on the workstation or server blocked the probe.
- The agent wasn't tested because it doesn't support HTTP server integrations

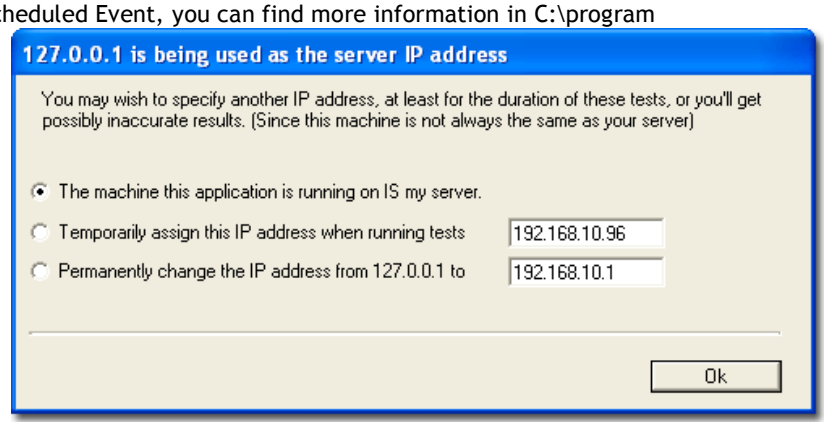
Note: Effectively, this test is performing an http://ipaddress:TCPPort and then entering the username and password provided.

There are three test cycles. If any component fails, it does not advance to the next round. RLCONFIG only tests to see whether the configured component is responsive to Redline, not whether that component is configured logically. Note that it may take some time for edits in ConsoleOne to propagate throughout the system before they can be tested accurately.

- In the first round of tests, RLConfig tests to see whether a connection can be established, then attempts to authenticate, and finally to generate a page from the server.
- Additional testing of the HTTP server is tested, as well as verbose logging for many but not all systems. (Currently, verbose logging is not tested for GWAVA, Toffa and NotifyLink.)
- Loops are run for the POA (scheduled events configured and all the GWCheck configurations appear to be correct) and the MTA (Message logging on or off) and that GWCheck events are configured. Note there are some minor limitations: the MTA test can verify if the server has Message Logging on, but not the level or tracking. The GWCHECK check cannot verify that you have reasonable settings for the frequency of the GWCHECK event.

Note: If the POA reports a misconfigured Scheduled Event, you can find more information in C:\program files\beginfinte\redline\bin\event.txt

Click the **Test** button to start a test. If an agent has 127.0.0.1 assigned as its HTTP IP Address, a dialogue box will be presented allowing administrators to temporarily or permanently assign new IP addresses during the testing phase. (You may be testing from a different server than the one containing the agent.)


127.0.0.1 is being used as the server IP address
You may wish to specify another IP address, at least for the duration of these tests, or you'll get possibly inaccurate results. (Since this machine is not always the same as your server)
The machine this application is running on IS my server.
Temporarily assign this IP address when running tests
192.168.10.96
Permanently change the IP address from 127.0.0.1 to
192.168.10.1
Ok

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Starting and Stopping Redline

When you run Redline for the first time, make sure you have set up all of the information as discussed in Post-Installation Tasks. Also, be patient and wait a few minutes – if RLAGENT runs before the GroupWise agents or before the RLCENTER is fully loaded, it may take some minutes to synchronize.

NetWare

- To start RLCENTER, type RLCC at the server console
- To start RLAGENT, type RLAG at the server console. (This assumes SYS:\opt\Beginfinite\redline\bin is in the search path, which is the default installation location.)
- To stop RLCENTER and RLAGENT, type NOREDL at the server console. This is a NCF file installed to ensure all Redline programs and libraries are unloaded. You may use **F7** at each server console as well, but then the libraries may remain resident, complicating an upgrade.

On a NetWare installation, you may notice after the Redline Agent has been running for a few minutes that a message that the sys:\etc pathtab has been changed. If this occurs, exit the Redline Agent and restart it. This normally occurs only once a Redline installation, but may recur if additional integrated components are added to be monitored at a later time.

Windows

- To start RLAGENT, double click either the **Redline Agent** or **Redline Agent with Screen** (the latter presents a logging interface).
- To stop RLAGENT, close the program or use Task Manager, to close the application.

Linux

- To start RLCENTER, type /etc/init.d/rlcenter start at the command line
- To start RLAGENT, type /etc/init.d/rlagent start at the command line
- To stop RLAGENT, type /etc/init.d/rlcenter stop at the command line
- To stop RLCENTER, type /etc/init.d/rlcenter stop at the command line

Other commands supported with Linux include status (which verifies the agent is running) and restart (which unloads and then reloads the agent). For example /etc/init.d/rlcenter restart restarts the Redline Control Center.

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Troubleshooting

Connectivity between RLAGENT and RLCENTER

There are three major reasons why RLAGENT fails to communicate with RLCENTER:

- The RLCENTER IP Address and Port are incorrect in the RLAGENT configuration file. The RLAGENT log should make this very clear.
- The licensing information in the RLAGENT configuration file does not exactly match that of the RLCENTER configuration file. The RLAGENT log and the RLCENTER log will both display an error message if this is the issue. Note that licensing information is case sensitive. Administrators can change the Licensing information for RLCENTER in the Web Based UI and the RLAGENT in RLCONFIG. See the Post Installation Tasks section for details.
- RLCENTER is not running or not finished loading. The RLAGENT log will state that it cannot contact the Control Center.

Connectivity between RLAGENT and Integrated Components

There are five major reasons why RLAGENT fails to communicate with an integrated component:

- The component is not enabled in the RLAGENT configuration file. When the RLAGENT starts up, does the log show that RLAGENT is trying to contact that component? On NetWare the **F10** button at the RLAGENT console will be helpful.
- The IP address, port, or authentication information is incorrect in the RLAGENT configuration file. Look for this in the RLAGENT log. On NetWare the **F10** button at the RLAGENT console will be helpful.
- An incorrect path is specified for a component that requires a path parameter in the RLAGENT configuration file. Remember, on Netware and Linux, the path format must be POSIX. To test an agent, try testing that agent by attempting to contact it in a web browser: i.e.: http://ipaddress:httpPort. This should be clearly evident in the RLAGENT log.
- The component is not running or not correctly set up to integrate. When the RLAGENT starts up, does the log show that RLAGENT is trying to contact that component? On NetWare the **F10** button at the RLAGENT console will be helpful.
- The component may have a “dependency error” – it requires another component to enabled and integrated to function properly. An example is GWAVA, which requires its parent domain to be enabled. On NetWare the **F10** button at the RLAGENT console will be helpful.

Data Population of Reports

- Make sure the GWCHECK events are set up correctly. In particular, do not use the Interval option for scheduling, and verify that the POA log shows GWCHECK as having run. Many reports, particularly user-based reports require these GWCHECK logs. They must be created in <postoffice>\wpcsout\chk, the default location
- For the POA, MTA, WebAccess, Messenger and GWIA, Redline relies heavily upon parsing the logs created. It does this by looking every two minutes in the configured log directory, and copying these files to <Redline>\imp. Issues: Verify logging is on and set to Verbose. Sometimes arise where the GroupWise agents hold a file lock on the current log file. Either wait for the log file to cycle, or cycle it manually. You can test by manually copying the log files to the imp subdirectory, and then rerunning the report.
- Consult Appendix 5 for information on where report draws their information from and how often they are updated.

Alerts and Reports stop functioning

In the Demo version, Reports functionality is disabled and only five alerts at a time are presented. If you have purchased Redline licences and these features stop functioning, please ensure that you have entered your licence key and code correctly. If these were not entered correctly, after 30 days, Redline will enter demo mode, and deactivate Alerts and Reports.

- **Reminder**: There are system requirements support pack requirements for NetWare and Windows that are mandatory. Ensure that these are met before installing Redline

Issues with NetWare and Paths

Redline is installed by default on the SYS volume and stores its data there. If you move Redline or its data directories (by editing RLAGENT.CONF) to another volume, keep in mind all paths must be POSIX-(Linux) style. Similarly GroupWise agents located on a non-SYS volume may present a problem. See Appendix 7 for details.

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Uninstalling Redline

Redline's ability to drill deep into even the most complex GroupWise message system offers network administrators, and business owners an ability to understand the inner workings of their e-mail system. We sincerely hope that Redline has provided powerful functionality that you cannot find elsewhere.

If you are uninstalling Redline, and have questions about your trial, please feel free to contact us at info@gwava.com.

NetWare

- Stop both Redline programs
- Type noredl.ncf in the console
- Delete the SYS:\opt\Beginfinite\redline tree
- Remove modifications from sys:system\autoexec.ncf

Note - The Windows-based installer can do this automatically. Run SETUP and click through the prompts to select **Uninstalling** at the end.

Windows

- Stop RLAGENT
- Go to Start/Control Panel/Add/Remove Programs and select Redline

Linux

Automatically: In a graphical Linux environment, use the yast command. From the command line, type rpm – e and then the package name.

Manually:

- Stop both Redline programs: To stop RLAGENT, type /etc/init.d/rlcenter stop at the command line and to stop RLCENTER, type /etc/init.d/rlcenter stop at the command line
- Delete the /opt/Beginfinite/redline tree
- Remove /etc/init.d/rlcenter and /etc/init.d/rlagent
- Remove /lib/ libredline.so.2.5.0

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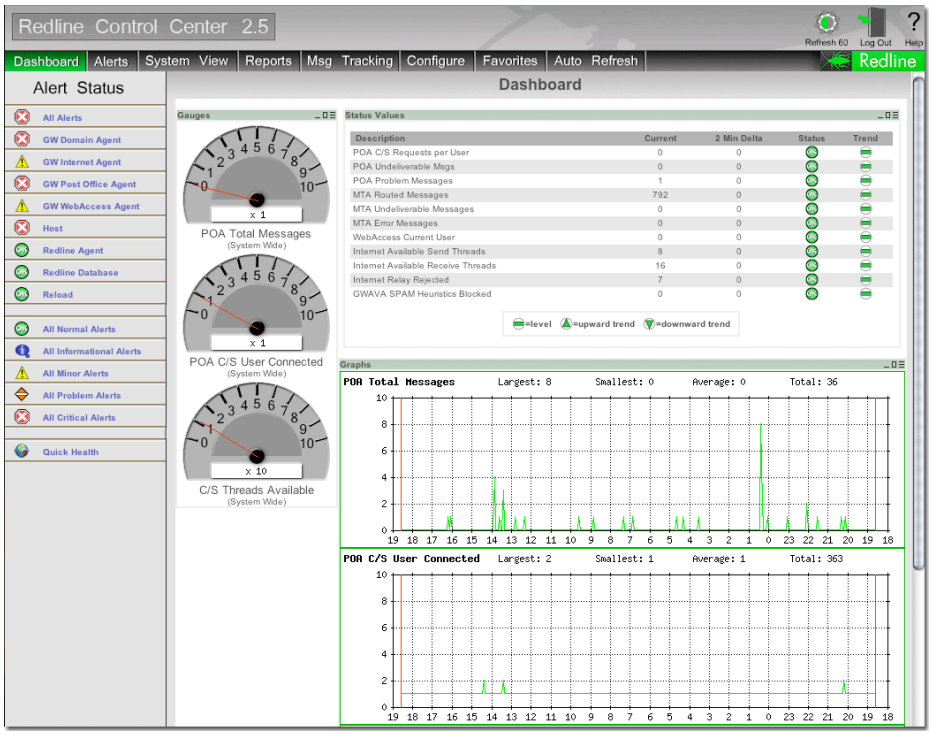
Using Redline

Overview

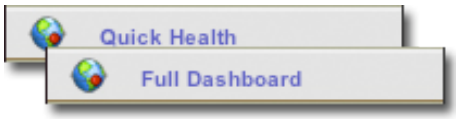
Redline's Control Center provides a top-level Dashboard allowing administrators to see alerts quickly. The Dashboard view displays performance counters, gauges and charts highlighting the state of the GroupWise system. This unique web interface is a powerful tool for reducing the time administrators spend managing GroupWise.



The default screen is the **Dashboard**. From this point, administrators will have access to in-depth information about their entire GroupWise messaging systems including: alert queues, reports, system details (called System View), as well as Redline configuration screens. There are also buttons for configuring the automatic refresh rate for the screen, logging out, and a link to the on-line manual.

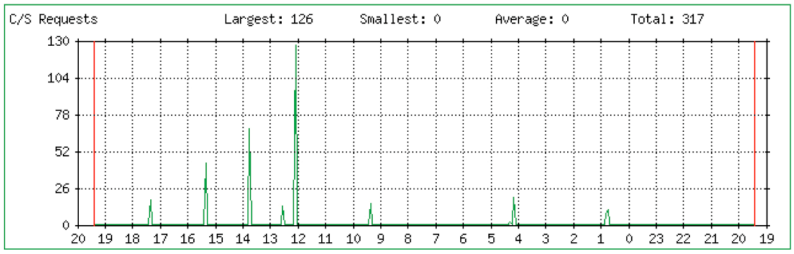
Even with a simple GroupWise environment with one MTA and one Post Office, the Redline interface will include several dozen screens, all reporting data reflecting the state and nature of your GroupWise environment. Fortunately, these are not feature screens with innumerable checkboxes that must be memorized; these are reports with clickable components.

New in the latest version of Redline is the Quick Health button. Click it to get an overview of how your network is performing. In the Quick Health view, the button will now be named Full Dashboard.



Graph title
The phrase in the upper left corner of each graph is the **name.**

Values
Repoted values at the top of Redline graphs include Largest, Smallest, Average and Total.



Scale
The vertical values on the left side of the graph expand as needed to cover the range of reported data. The default range is 0-10.

Time
The reporting period is represented using a 24-hour clock.

Navigation

The Navigation Bar presents eight buttons: Dashboard (the default screen), Alerts, System View, Reports, Message Tracking, Configure, Favorites and Auto Refresh.

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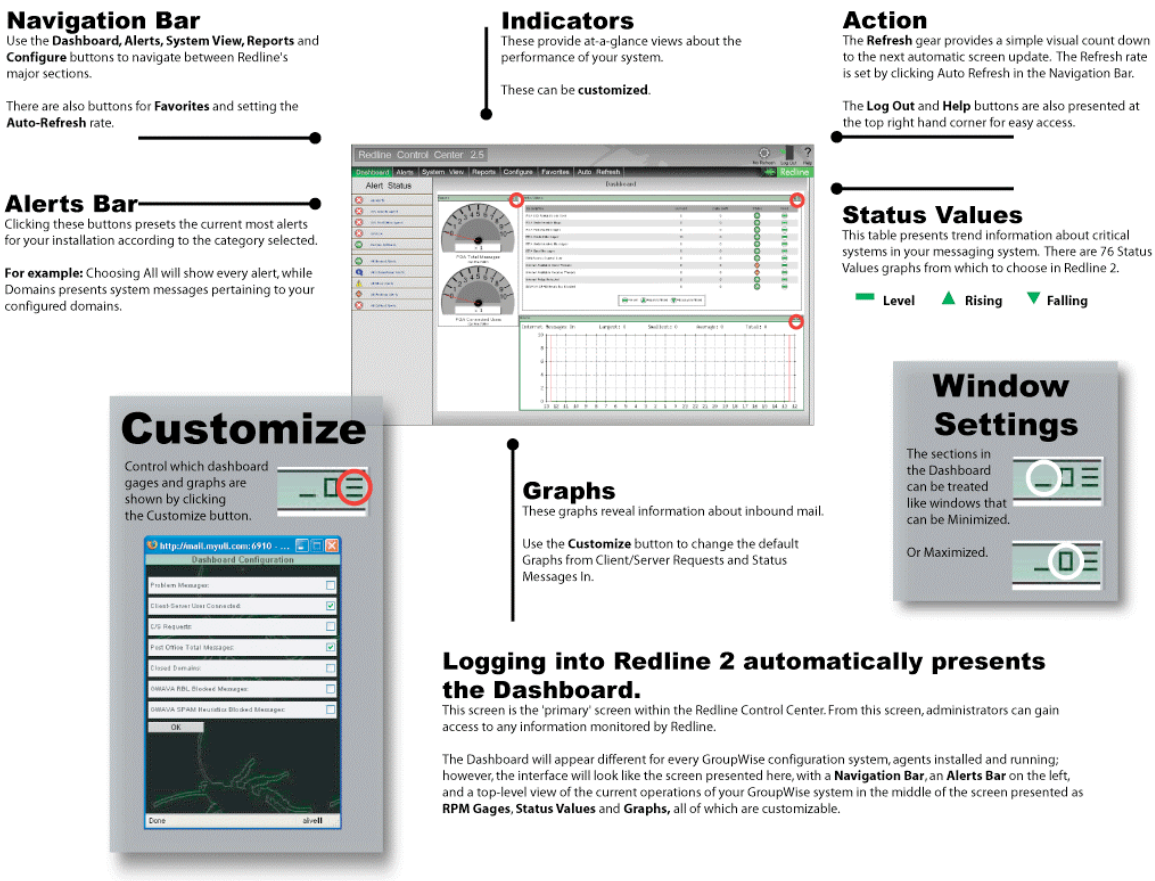
Dashboard

The default Redline screen is the Dashboard. This central location presents an up to the minute top-down view of your GroupWise message service.


Navigation Bar
Use the Dashboard, Alerts, System View, Reports and Configure buttons to navigate between Redline's major sections.
There are also buttons for Favorites and setting the Auto-Refresh rate.
Indicators
These provide at-a-glance views about the performance of your system.
These can be customized.
Action
The Refresh gear provides a simple visual count down to the next automatic screen update. The Refresh rate is set by clicking Auto Refresh in the Navigation Bar.
The Log Out and Help buttons are also presented at the top right hand corner for easy access.
Alerts Bar
Clicking these buttons presets the current most alerts for your installation according to the category selected.
For example: Choosing All will show every alert, while Domains presents system messages pertaining to your configured domains.
Status Values
This table presents trend information about critical systems in your messaging system. There are 76 Status Values graphs from which to choose in Redline 2.
Level
Rising
Falling
Customize
Control which dashboard gages and graphs are shown by clicking the Customize button.
Graphs
These graphs reveal information about inbound mail.
Use the Customize button to change the default Graphs from Client/Server Requests and Status Messages In.
Window Settings
The sections in the Dashboard can be treated like windows that can be Minimized.
Or Maximized.
Logging into Redline 2 automatically presents the Dashboard.
This screen is the 'primary' screen within the Redline Control Center. From this screen, administrators can gain access to any information monitored by Redline.
The Dashboard will appear different for every GroupWise configuration system, agents installed and running; however, the interface will look like the screen presented here, with a Navigation Bar, an Alerts Bar on the left, and a top-level view of the current operations of your GroupWise system in the middle of the screen presented as RPM Gages, Status Values and Graphs, all of which are customizable.

The Dashboard appears different for every GroupWise configuration system because the agents installed and running will be different; however, the interface will look like the screen presented here:

- **The Navigation Bar** – These let you navigate between major sections in Redline
- **The Alerts Bar** – The alerts buttons help you sort system alerts by category
- **Gauges** - Customizable dials giving you immediate feedback of messages flowing through your system
- **Action Buttons** – For logging out, determining the when the next automatic screen refresh is due, and for getting Help
- **Status Values** – This customizable screen reports on trends in your GroupWise system: the values reported on can be set by clicking on the Customize button
- **Graphs** – The Graphs window reports on system performance: the items reported on can be tailored

Dynamic Alert Status Bar

Previous versions of Redline contained a lengthy list of items and products that could be configured to operate with Redline. Redline 2.5 now only includes configured items in its Alert Status list. For example, Blackberry integrations are now supported by Redline; however, if your messaging environment does not include Blackberry, an entry for such will not included.

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Operations

Here are several examples of how to use Redline 2.

How can I determine if messages are piling up?

- Click **System View** in the Navigation Bar
- Click the **Agents** tab
- Choose a GroupWise Agent, for example, PO GWIA.
- Click the **Status** tab
- Scroll down to view the **File System Status**.

How do I customize Redline so that I am not sent so many notifications?

Redline sends many alerts by default: informational and critical alerts differ only in name. One of the first customizations you will need to do is set Redline to transmit only those reports you wish to see.

- Log-in to the Redline Control Center
- Click **Configure** on the Navigation Bar
- Click **Notifications** on the menu at the right
- Select the component about which you are receiving Alert notifications (E-Mail, Broadcast, SNMP or API Folder)
- In the severity settings, deactivate notifications below the needed threshold (for example, only e-mail alerts of critical or problem level)

Another very valuable screen for configuring how and when Redline sends alerts is the **Analyzer** screen, which is also found in the Configuration section. The Analyzer allows Redline administrators to set:

- Whether or not **Back to Normal** alerts are sent
- How alerts are grouped when there are multi-fires
- When the connection lights go from green to red

How do I configure alerts to be sent via e-mail or pager or another method?

Similarly, Redline can be configured to send messages via e-mail or other delivery methods when a certain threshold is crossed by a GroupWise agent it is monitoring. To do so:

- Log-in to the Redline Control Center
- Click **Configure** on the Navigation Bar
- Click **Notification**
- Select the method for contact required

How can I diagnose Redline's behavior quickly?

From the Redline Agent Console, **Shift-F6** starts a data collection loop immediately. This can be useful when debugging a Redline installation.

How can I add to items to the Favorites menu?

- Log-in to the Redline Control Center
- Go to the section that you want to add to the Favorites menu
- Highlight the web address up until the session ID and copy it to the clipboard
- Click **Configure** in the toolbar
- Click **User**
- Click **Favorites**
- Paste the web address in the Favorite URL field
- Enter a title in the Favorite Name field

Where do I configure the two minute delta?

In the Configure section, click the **Analyzer** tab and change the Interval value from 2.

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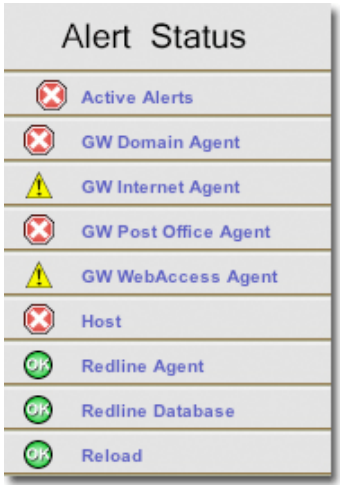
Alerts

The buttons along the left hand side of the Dashboard drill deep into the Alerts section.



These top level reports were included in the Dashboard to allow administrators to see the health of their GroupWise environments immediately. The Alert Status buttons are in two groups. The first group will show the alerts for each component of GroupWise. The second group shows the alerts by priority. The Alert Status buttons are:

- Active Alerts
  (Each type of integration is then listed)
- All Normal Alerts
- All Informational Alerts
- All Minor Alerts
- All Problem Alerts
- All Critical Alerts

To see all the Alerts, click the **Active Alerts** button in the Navigation Bar.

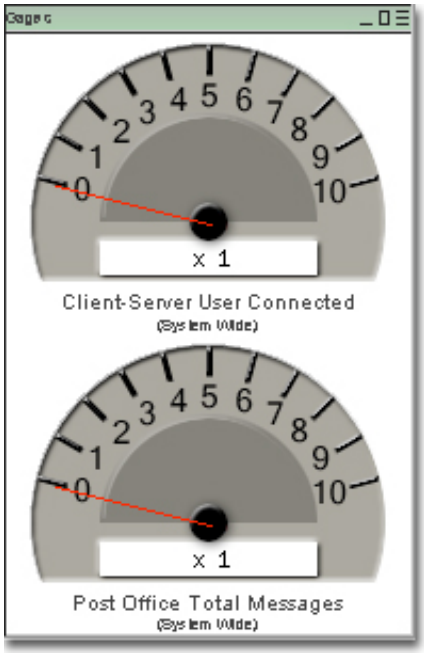
Note - In the Demo Version, the Alerts and Reports functionality is limited to the first five entries

RPM Gauges

On the default dashboard are two gauges for reporting the number of connected users logged into your GroupWise system, and the number of messages currently being processed. In most installations there can be up to a two-minute delay with this information as it is collected by the Control Center.

Clicking the **Customize** button allows administrators to choose which RPM gauges appear in the Dashboard. Options here include:

- Problem Messages
- Client-Server User Connected
- C/S Requests
- Post Office Total Messages
- Closed Domains
- GWAVA RBL Blocked Messages
- GWAVA SPAM Heuristics Blocked Messages



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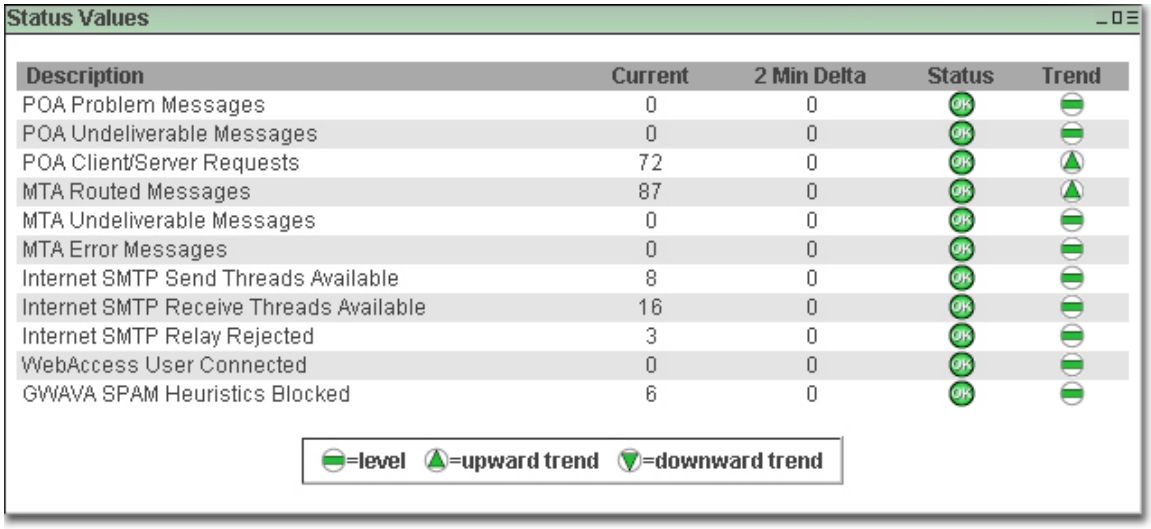
Status Values

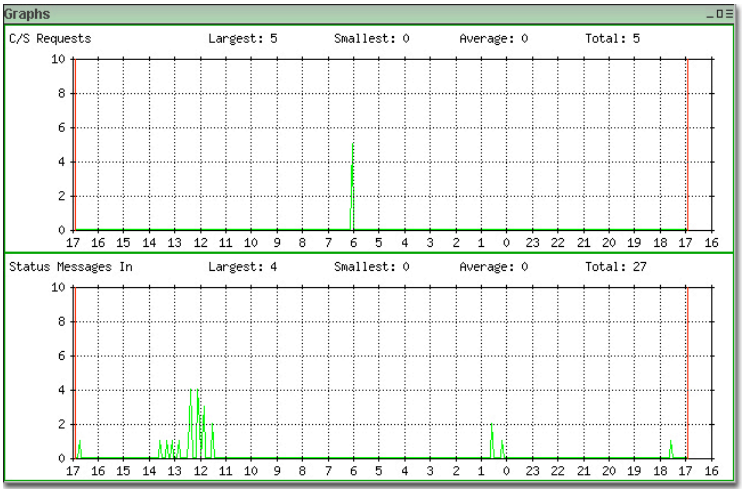

Status Values
Description
Current
2 Min Delta
Status
Trend
POA Problem Messages 0 0 OK
POA Undeliverable Messages 0 0 OK
POA Client/Server Requests 72 0 OK
MTA Routed Messages 87 0 OK
MTA Undeliverable Messages 0 0 OK
MTA Error Messages 0 0 OK
Internet SMTP Send Threads Available 8 0 OK
Internet SMTP Receive Threads Available 16 0 OK
Internet SMTP Relay Rejected 3 0 OK
WebAccess User Connected 0 0 OK
GWAVA SPAM Heuristics Blocked 6 0 OK
=level =upward trend =downward trend

To the right of the dashboard gauges are two status values charts. These provide top-level statistics and trends about message traffic for a quick evaluation of the overall health of any GroupWise installation. The columns are **Description, Current, 2 Minute Delta** (or the change recorded in the last two minutes), the **Status** and the **Trend** whether flat, rising or falling.

This chart reports global values. For individual values, go into System View and drill down. These can be configured by clicking the **Customization** button at the top right hand corner of this window. Remember that these are only the default reports. Administrators can build their own custom queries in Redline. Queries are built using the HTML templates and GroupWise variables.

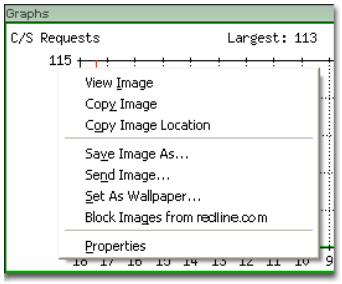
Graphs

At the bottom of the Dashboard screen is the **Graphs** section.



The chart shows a report line graph for at-a-glance status of your message system. Click the **Customization** button to choose which graphs are displayed. Options available include:

- Problem Messages
- Client-Server User Connected
- C/S Requests
- Post Office Total Messages
- Status Messages Out
- Status Messages In
- Users Currently Active
- GWAVA Total Messages processed
- GWAVA RBL Blocked Messages
- GWAVA SPAM Heuristics Blocked Messages



Right-click to save the graph for distribution.

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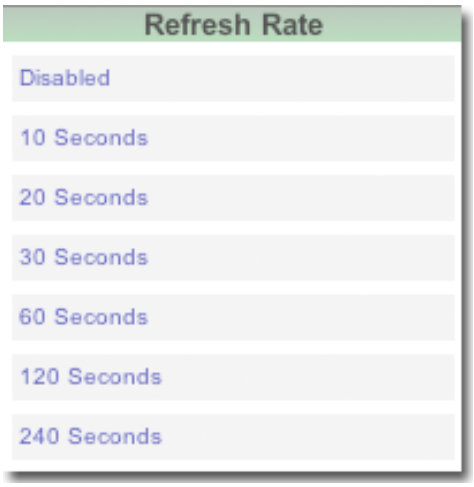
Log Out
The Log-Out button closes your Redline session. You will NOT be asked to confirm your log-out.

Help
The **Help** button opens the Redline Manual in a new browser window. It links directly to GWAVA's web site, so a live internet connection is needed. This is done to provide you with the latest Redline help. No personalized information is collected.

Auto Refresh
Click the **Auto Refresh** tab to see the list of pre-selected times that Redline can be set to refresh your browser automatically.

- Disabled
- 10 Seconds
- 20 Seconds
- 30 Seconds
- 60 Seconds
- Two Minutes
- Four Minutes



You can see the current refresh rate in the upper right hand corner underneath the spinning gear. The gear will gradually become completely green as the timer reaches zero.

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Alerts

The Alerts button presents all active alerts entered in the GroupWise alerts queue. Redline allows you to examine these alerts in detail, giving you a rich understanding of what is taking place in your messaging system. The alerts are broken down by subject. Choose the type of alert queue report needed by clicking on the subject tabs at the top of the screen. Below this, at the bottom of the column is a list of alerts by level. Click them to present alerts by severity.

- All Normal Alerts
- All Informational Alerts
- All Minor Alerts
- All Problem Alerts
- All Critical Alerts

List length

Use the List Alerts data entry field to shorten or lengthen the number of alerts by changing the value in the provided data entry field.

Search

Administrators can also search through all data with the **Search** field and button.

- **Unlimited** in SQL is represented by the wildcard %
- **Single character** in SQL mode is represented by the wildcard _

New in Redline 2.5 is the ability to employ actions against multiple alerts. Select the needed alerts using the checkboxes, then click the **Select All, Clear All, Remove Selected** or **Solve Selected** as required.

The sorting column headers—Date, Time, Severity, Agent, Description and Assigned to—are also clickable.

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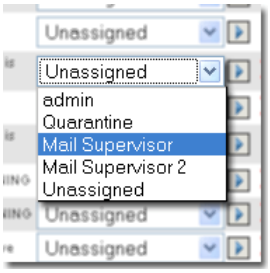
Alerts: All

The default Alerts screen here presents all alerts.

The most recent appears at the top of the queue. The alerts have columns detailing their **date, time, severity, agent, description, assigned to** and **actions** to be taken including **delete** or **save.** You may click on the Agent name to be taken to the appropriate System View automatically.

Assigned To

Alerts can be left unassigned or assigned to administrators for action. Use the drop down menu in each alert's entry line to associate it with an administrator. Users can be created in the Configure section of Redline.

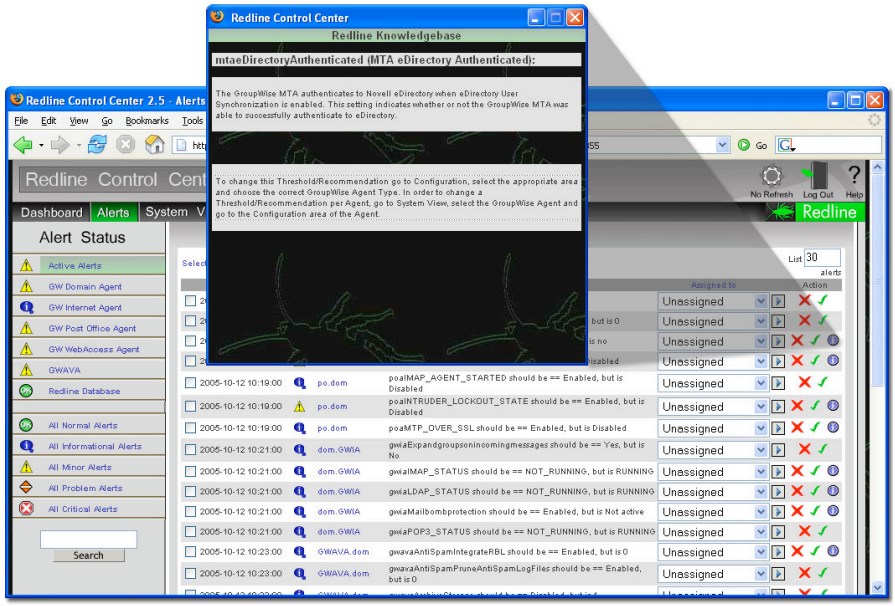


Action

The red 'X' and the green checkmark. Clicking the red icon deletes that alert and removes it from the queue. It is not stored. **Note**: You will NOT be asked to confirm this step. The green checkmark also removes the item from the alert queue, but saves the alert so it can be analyzed further by going to System View and examining the particular agent's alerts screens.

Information

New in Redline 2.5 is the metavariable information icon. Clicking the blue 'i' presents a dialogue box with a Redline knowledge base definition explaining what variable is being tracked.



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Working with Alerts

A great deal of information is collected by Redline which can make identifying why an alert was generated problematic. Every alert generated by Redline has a reason, some of which are transient. For example, perhaps there was a problem for an instant that was resolved, in which case the ‘alert’ generated is minor. In such a case, look at the GroupWise logfiles to check what happened at the time when the alert fired or even five minutes before the alert.

If an Agent doesn't send any data for more than 180 seconds, the alert is fired. In large environments this setting should be changed to 250 seconds. You can change this setting in Configuration/Control Center/Analyzer. On this page you can see the configured TimeOut for agents.

Redline collects many values from the GroupWise HTTP Interface. DO NOT compare the values that you see in Redline with the NetWare NWSNUT screen. Instead, use the browser.

DO NOT change the recommend.conf and threshold.conf files. They will be overwritten with every Redline installation. This is on purpose. Redline creates the files recomuser.conf and threshuser.conf. To make changes, add or remove thresholds and/or recommendations using the web interface.

Back to Normal

By default, alerts don't go away because a situation is back to a normal state. Enable or disable this setting for every threshold separately. Alerts that are already fired are not affected by this change. The BackToNormal setting on the page "Configuration/Control Center/Analyzer" enables only the engine thathandles "Back to Normal" alerts. It does NOT enable BackToNormal alerts for all thresholds and recommendations.

If you see Agent Down Alerts you can go to the System View and Mouse over the red or green plug. Hovering the time at which the ControlCenter last received information about this agent. If you see a red plug, an Agent Down alert was fired.

Deploying

When deploying Redline, do it for ONE agent first, solve all the problems that come up and add the second agent not before some customizations to the thresholds and recommendations have been made. Otherwise the many alerts that will be generated may be too confusing to debug.

Add one GroupWise agent after the other until you have done the first five or ten. With each addition, time check the alerts and adjust the settings in Redline that they match your needs. Each GroupWise system is different. After the first ten agents are done, you may feel confident to add the remaining agents in one large session.

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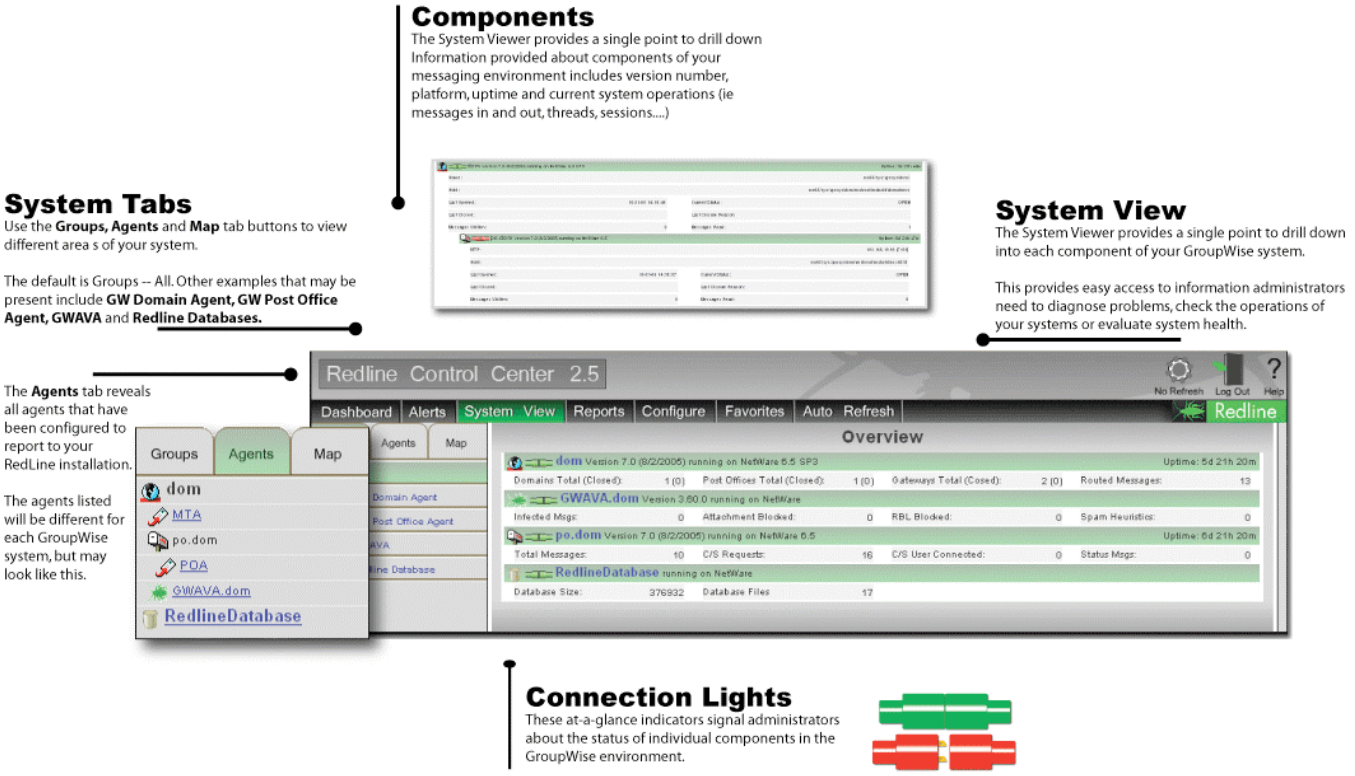
System View

System View allows administrators to drill down into any one of the more than 3,500 fields of information in Redline based on the agents configured to report to Redline. The list of agents will change depending upon the configuration of your GroupWise installation. The default screen in the Groups section is **All**. Other drill down tabs include **Status, Settings, Alerts, Reports, Graphs** and **Configuration**.

The System View section of Redline allows administrators to drill down deep into any area of GroupWise in effectively real time. No more going into individual files and directories to glean the health of your GroupWise installation by memorizing disparate statistics. System View consolidates this data.

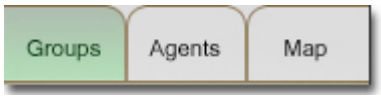

Components
The System Viewer provides a single point to drill down Information provided about components of your messaging environment includes version number, platform, uptime and current system operations (ie messages in and out, threads, sessions....)
System Tabs
Use the Groups, Agents and Map tab buttons to view different area s of your system.
The default is Groups -- All. Other examples that may be present include GW Domain Agent, GW Post Office Agent, GWAVA and Redline Databases.
System View
The System Viewer provides a single point to drill down into each component of your GroupWise system.
This provides easy access to information administrators need to diagnose problems, check the operations of your systems or evaluate system health.
The Agents tab reveals all agents that have been configured to report to your RedLine installation.
The agents listed will be different for each GroupWise system, but may look like this.
Redline Control Center 2.5
Dashboard
Alerts
System View
Reports
Configure
Favorites
Auto Refresh
Redline
Groups
Agents
Map
dom
MTA
po.dom
POA
GWAVA.dom
RedlineDatabase
Overview
Connection Lights
These at-a-glance indicators signal administrators about the status of individual components in the GroupWise environment.

Red Alert

Agents in the System View main screen have green and red connection indicators. An agent reporting to Redline regularly will have a green light. If it fails to communicate with Redline within two minutes, the light switches to red. The reporting time for the green to red change over can be configured to be as low as ten seconds.

Groups, agents and map

- **Groups** is the default System View tab. It reports global values.
- The **Agents** tab reports granular detail about specific agents. Clicking on an agent reports summaries, status, settings, alerts and reports per agent
- **Map** shows how the system's elements are linked together



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Groups

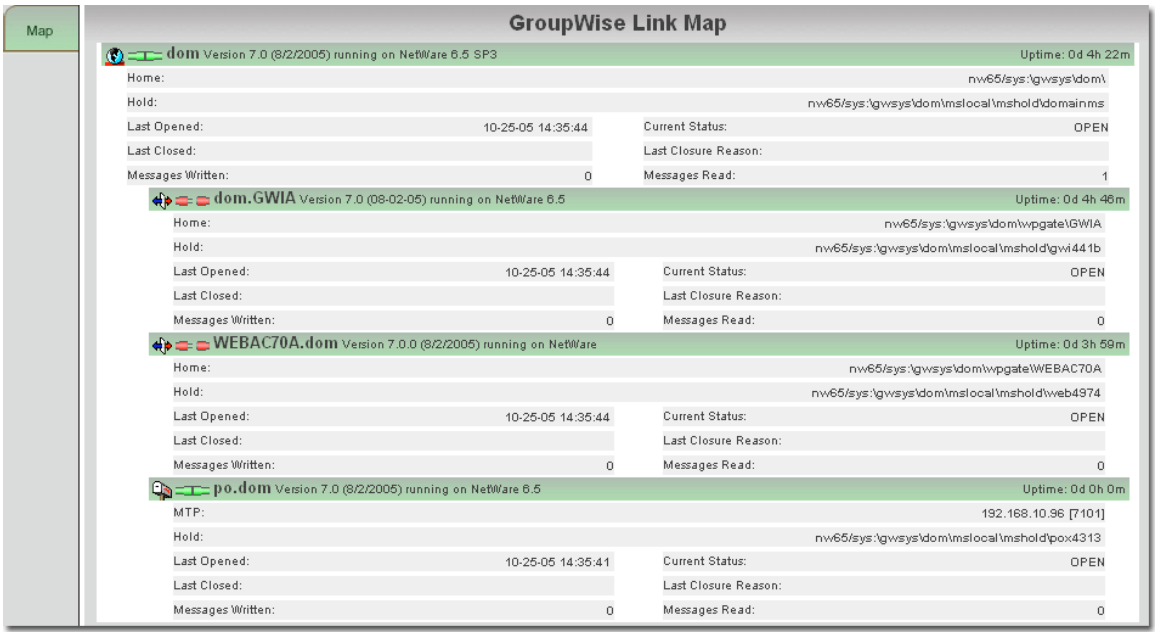
The Groups Tab contains a top-level view of the system as seen by Redline. The default is All, but system components can be grouped by **Domain**, **Post Office**, **Internet Agent**, **WebAccess**, **GWAVA**, **Guinevere**, **API Gateway**, **Messenger, Mobile Server, Exchange/Notes/Async Gateway, Blackberry, Notifylink, Archive2Go** and **Toffa SyncWise**.

Agent

The Agents tab contains very specific information about all agents configured to report to Redline. There are seven sub screens allowing administrators to drill deep into each agent's settings behaviors.

- **Summary** – A very detailed health check reporting core status values, general status values and file system status
- **Status** – What is going on at the moment—specifically, this agent's status in relation to its settings.
- **Settings** – Console One settings
- **Alerts** – Alerts specific to this agent. If there is an alert signaling continuously at a higher, more global level, it can be overridden at this level.
- **Reports**- Reports for this specific agent
- **Graphs** – Graphs for this specific agent. Note that if graphs are turned off globally, then they can be reactivated for specific instances here
- **Configuration** – Thresholds and recommendations for this agent or component

Map



The Map tab presents a simple to understand view of the GroupWise messaging system reporting to Redline. Obviously, every client's system will appear different. Use the connection indicator lights in the Map as well as the statistical data to identify trouble spots quickly.

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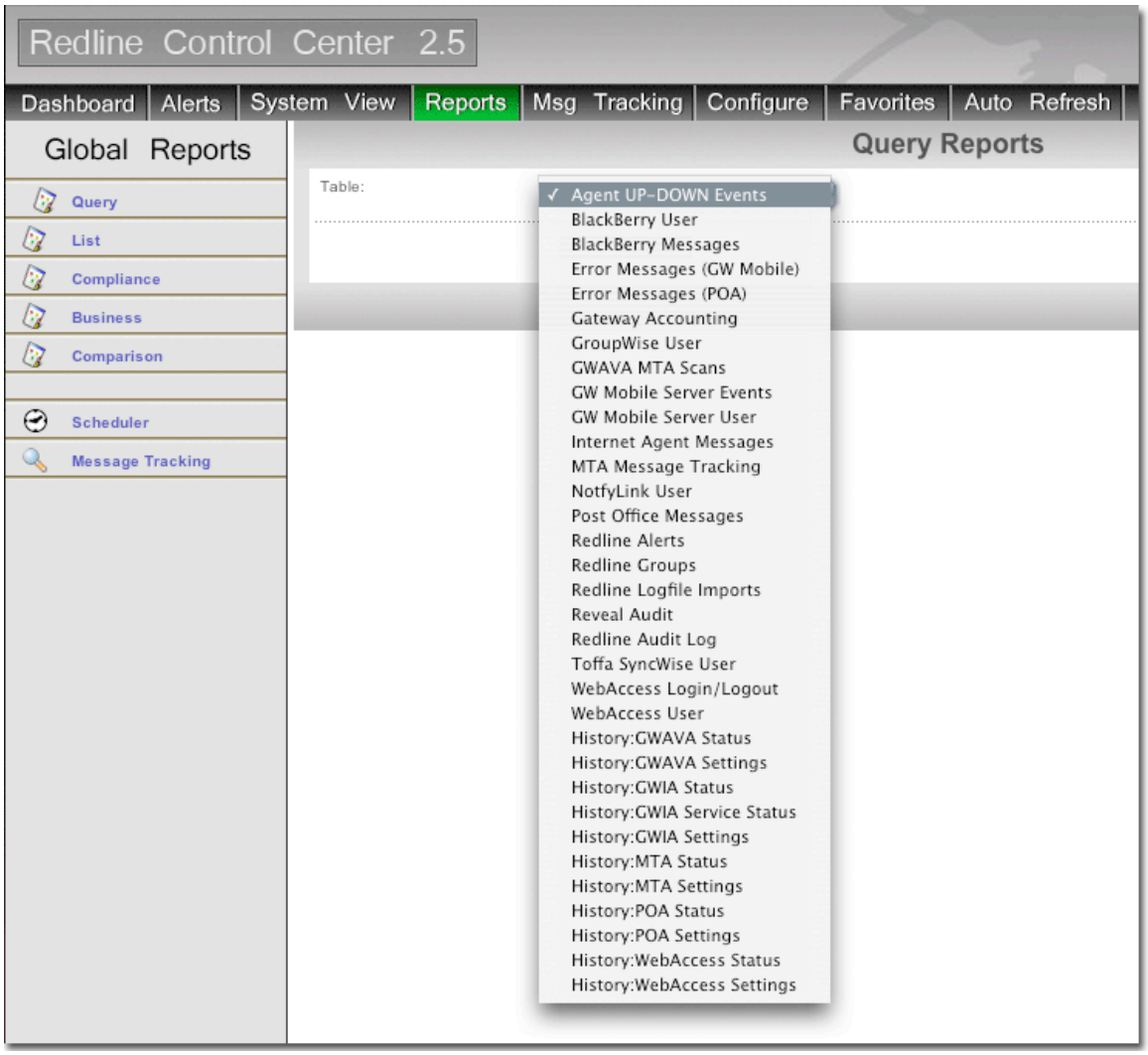
Reports



From the Reports screen, Redline administrators have the option of generating reports about nearly any aspect of the system being monitored by Redline. The general reports categories are:

- Query
- List
- Compliance
- Business
- Comparison
- Scheduler
- Message Tracking

Query reports are defined by the user. The other reports are pre-defined. Every report has a common format. Consequently, reports can be created by inserting .xml files in the folder /opt/beginfinite/redline/conf/reports. It is possible to create reports through the web interface as well. The options available when reports are generated changes depending on the nature of the data queried.

Please refer to Appendix 5 for information about data sources and frequency polling for the reports.

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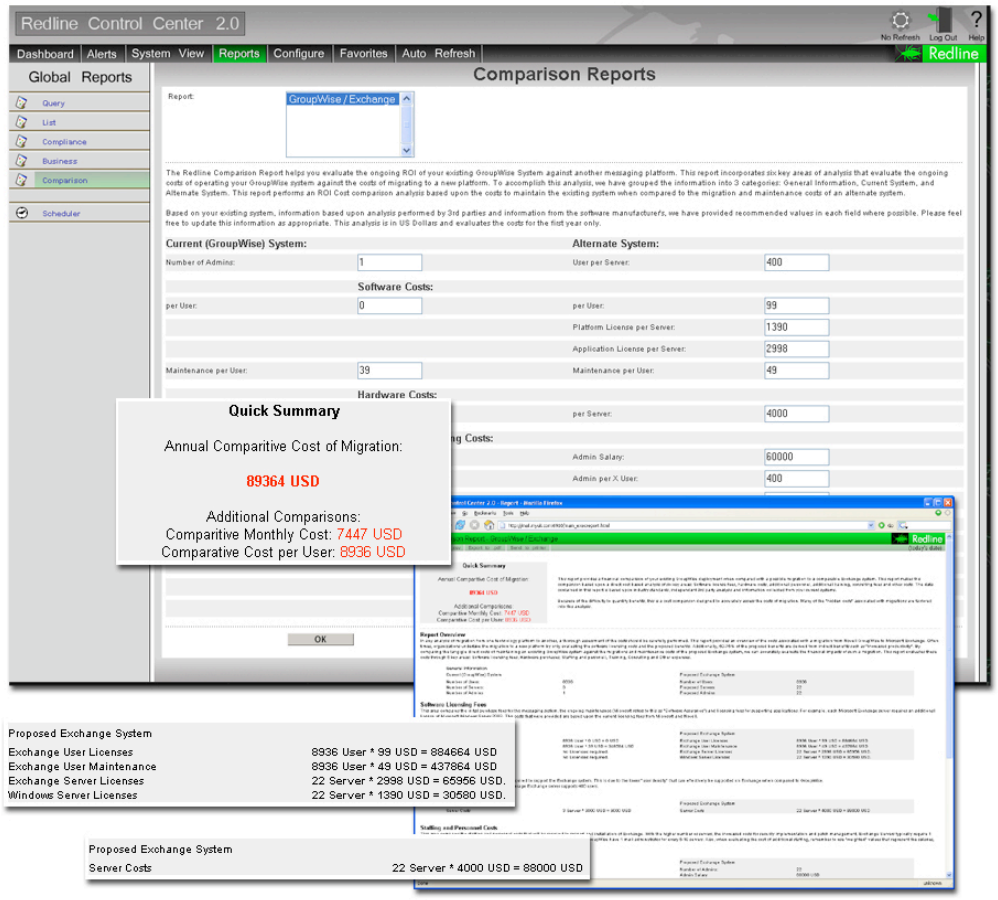
Comparison Reports

The Redline Comparison Report helps evaluate the ongoing return on investment of your existing GroupWise System—as calculated based on information collected by Redline--against another messaging platform. This report incorporates six key areas of analysis that evaluate the ongoing costs of operating your GroupWise system against the costs of migrating to another platform.

There are three informational categories: **General Information**, **Current System**, and **Alternate System**.

These are broken down into software and hardware costs, personnel and consulting costs, as well as training and other expenses.

This report performs an ROI Cost comparison analysis based upon the costs to maintain the existing system when compared to the migration and maintenance costs of an alternate system. Based on your existing system, an analysis is performed using comparative data from the software manufacturers and third party data. We have provided recommended values in each field where possible. Please feel free to update this information as appropriate. This analysis is in US dollars and calculates the first year only.



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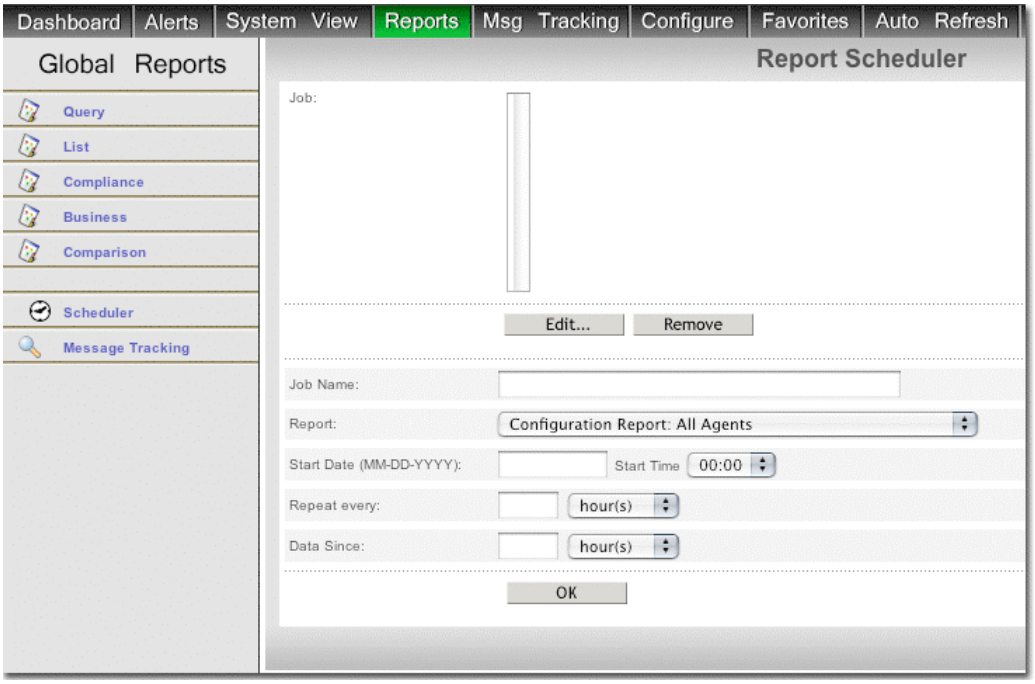
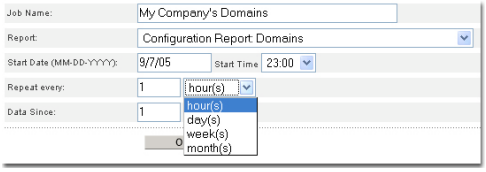
Scheduler

Here administrators can create, **Edit** or **Remove** custom report times. Begin by entering a scheduled report name in the **Job Name** field. Choose a **Report** type from the drop down menu.



- Configuration Report: All Agents
- Configuration Report: Domains
- Configuration Report: GWAVA
- Configuration Report: Guinevere
- Configuration Report: Internet Agents
- Configuration Report: Messenger Archive Agents
- Configuration Report: Messenger Agents
- Configuration Report: Post Offices
- Configuration Report: WebAccess
- GroupWise/Exchange
- HIPAA Account Audit
- HIPAA Configuration Report: Domains
- HIPAA Configuration Report: GWAVA
- HIPAA Configuration Report: Guinevere
- HIPAA Configuration Report: Internet Agents
- HIPAA Configuration Report: Messenger Agents
- HIPAA Configuration Report: Post Offices
- HIPAA Configuration Report: WebAccess
- Internet Agent Message Summary
- Internet Top 20 Recipient Domains by Message Count
- Internet Top 20 Recipients Domains by Message Volume
- Internet Top 20 Senders by Message Count
- Internet Top 20 Senders by Message Volume
- Internet Top 20 Sender Domains by Message Count
- Internet Top 20 Sender Domains by Message Volume
- Novell Self-Audit Report (CLA)
- Post Office Error Message Analysis
- Post Office Message Overview
- Post Office Message Analysis
- Post Office Operation Analysis
- Post Office Top 20 Recipients by Message Count
- Post Office Top 20 Recipients by Message Volume
- Post Office Top 20 Senders by Message Count
- Post Office Top 20 Senders by Message Volume
- Post Office Top 50 Messages larger than 5000 bytes
- Problem Analysis
- Redline Query Report
- Reveal Usage Analysis
- Sarbanes-Oxley Account Audit
- Sarbanes-Oxley Configuration Report: Guinevere
- Sarbanes-Oxley Configuration Report: GWAVA
- Sarbanes-Oxley Configuration Report: Internet Agents
- Sarbanes-Oxley Configuration Report: Domains
- Sarbanes-Oxley Configuration Report: Messenger Archive Agents
- Sarbanes-Oxley Configuration Report: Messenger Agents
- Sarbanes-Oxley Configuration Report: Post Offices
- Sarbanes-Oxley Configuration Report: WebAccess
- Top 20 Largest Mailboxes
- User Mailbox Analysis
- WebAccess most active user

Both a **Start Date** and **Start Time** must be entered in the form DD/MM/YY and 0-23 for the hours. Leaving these empty will result in no report being generated.



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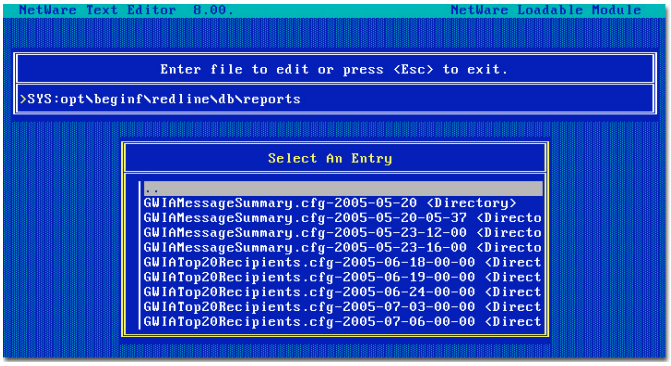
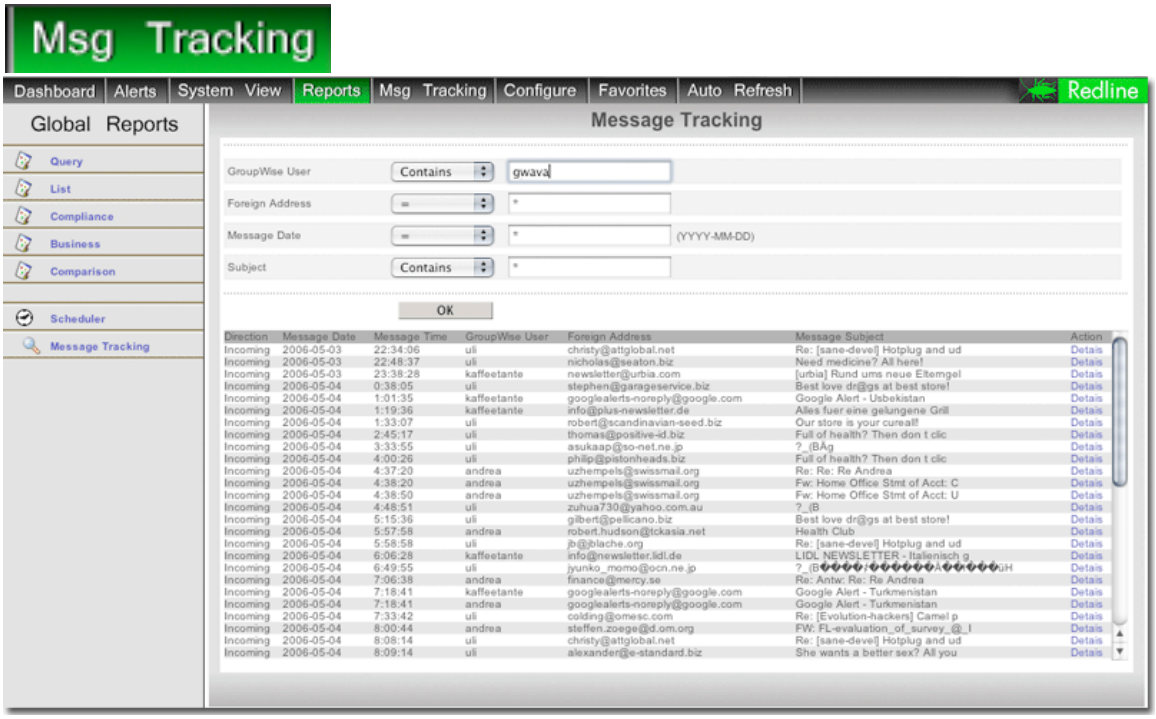
Next, set the frequency. Using the **Repeat Every** entry field and drop down menu, enter a numeric value and an accompanying descriptor for hours, days, weeks or months. End by choosing the **Date Range** using the same method, a value and a descriptor.

Click **OK** to submit.

When the scheduler runs, reports are generated automatically then saved to (redlinePath)\db\reports directory. Ie: opt\beginf\redline\db\reports.



Copyright 2006 Beginfinite Inc.



Redline's message tracking functionality allows Redline administrators to conduct searches from within Redline to help identify performance issues. Together with the MTA Message Tracking logfiles, Redline makes it possible to see the complete flow of the message through a GroupWise system from initial entry up to the point where the message is reaches its final Post Office. Similar reports can also be generated for outbound mail.

Search using:

- GroupWise User
- Foreign Address
- Message Date (YYYY-MM-DD)
- Subject

Search results present the direction – whether incoming or outgoing – as well as the date and time, user, foreign address and subject. Clicking the Details button at each entry line presents a report about how that particular piece of mail was processed by GroupWise. For detailed searching of message systems, please consult the GWAVA Reveal manual.

- In order for Redline to read the accounting logfiles into Redline, copy them into the /opt/beginfinite/redline/imp/acct. The file names can be anything, but they must be unique otherwise Redline might overwrite not yet processed files.

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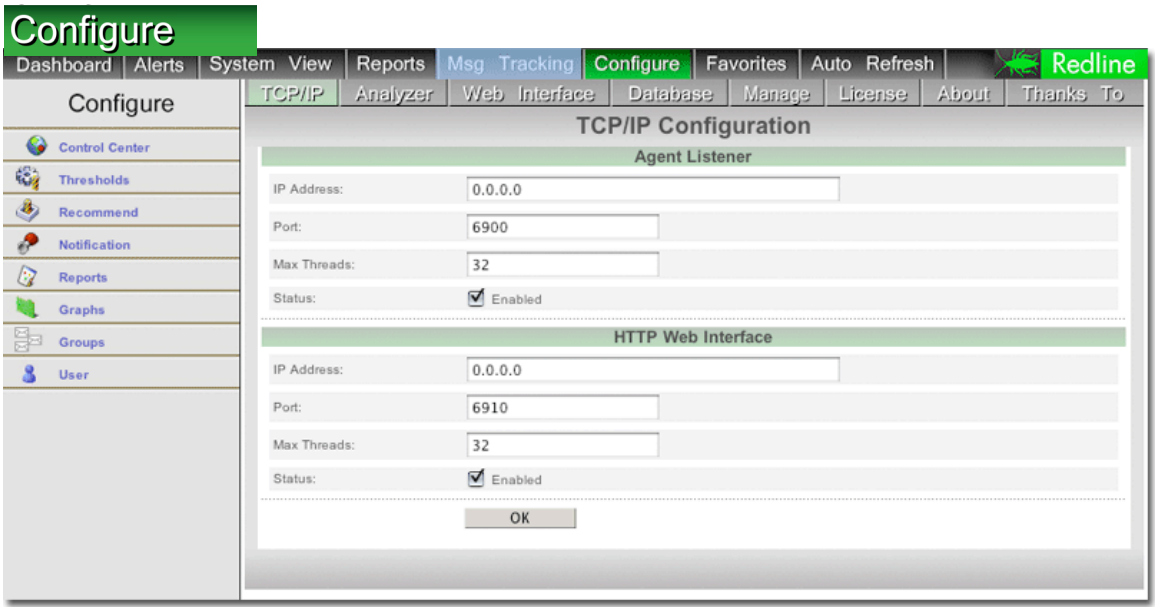

The Configuration screens contain the interfaces for managing how much of Redline operates. It has seven main sections, all of which have their own sub-tabs.

- **Control Center** - Configure basic operations of the Redline web interface and Control Center. Your licensing information is also stored here.
- **Thresholds** - The thresholds for different agents are configured here. A threshold defines when an alert is generated because a condition has been reached.
- **Recommend** - Similar to Thresholds, Redline administrators can configure when alerts can be generated. In contrast to thresholds, a recommendation is used to suggest a desirable value, rather than 'alert' an administrator that a value is above or below tolerance, or invalid.
- **Notifications** - The Notifications section is where Redline administrators configure what SNMP, broadcast, e-mail notifications are generated when alerts occur.
- **Reports** - The Reports configuration screen is where reports are customized. Even the HTML templates used in reports can be edited from here.
- **Graphs** - The Graphs configuration section is where administrators can customize the graphs used to represent data in Redline.
- **Groups** - The Groups configuration screen is where the groups and the elements making up those groups are created and edited or deleted.
- **Users** - Redline account permissions, passwords and customizations are made here.

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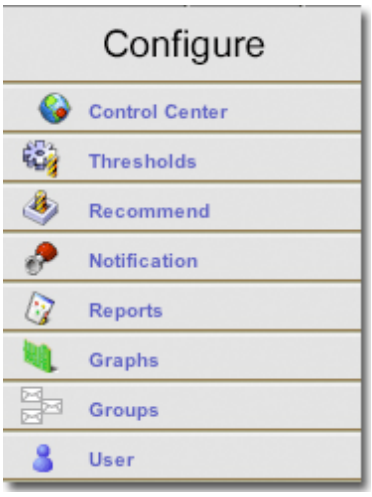
Control Center



Basic operations of the Redline web interface and Control Center are managed in the Configure/Global screens. Your licensing information is also stored here. There are also several tabs: **TCP/IP** (the default), **Analyzer, Web Interface, Database, License** and **About.**

TCP/IP

This screen is used for setting and resetting TCP/IP networking settings. There are two components to this screen, **Agent Listener** and **HTTP Web Interface**, but both have the same four information fields: **IP address, Port, Max Threads** and a **Status** checkbox. To edit these fields, make the needed changes and click **OK**.

Changes may take up to two minutes to be reflected in Redline's data. For summaries of this information and related information, click the **About** tab in the Configuration section of the Redline interface.

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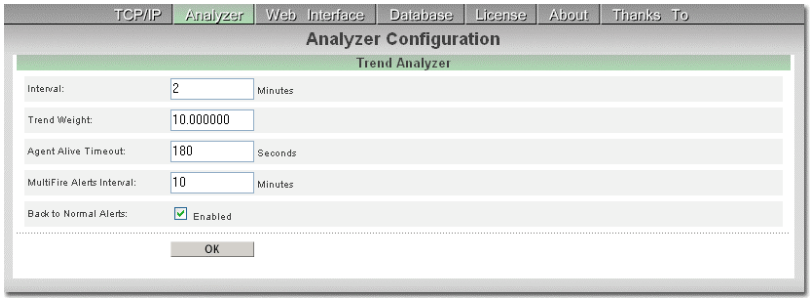
Analyzer

On the Analyzer configuration screen administrators may enable and disable many alert types. Only problem and critical alerts are enabled by default so administrators are signaled about important issues. Less important alerts can be enabled and disabled as needed.

- The default 2-minute delta
- The time at which the connection lights turn from green to red
- Tools for reducing the number of alerts

Important: If logfile alerts are enabled a great many alerts will be generated. For example, every time a user has mistyped a password and other similar events will generate alerts.



The Two-Minute Default

Trend data is reported throughout Redline, often with a two-minute delta. The Analyzer interval is where that default two minute setting is configured. To alter this value, enter a digit in the Minutes entry field.

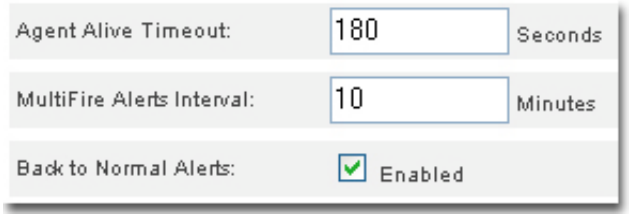
Trend Weight

The Trend Weight field compares current reported values reported to Redline to previously reported data. The default value is ten minutes. This means that historical data 'weighs' ten times more than the current value.

Agent Alive Timeout

This value controls when an agent is marked closed in the System View, consequently the connection lights turn from green to red. Its default value is 180 seconds.

Multifire Alerts Interval determines how often identical alerts will be broadcast. The default is 10 minutes. Enabling the **Back to Normal Alerts** checkbox will send an alert saying that the item is now back within tolerance.



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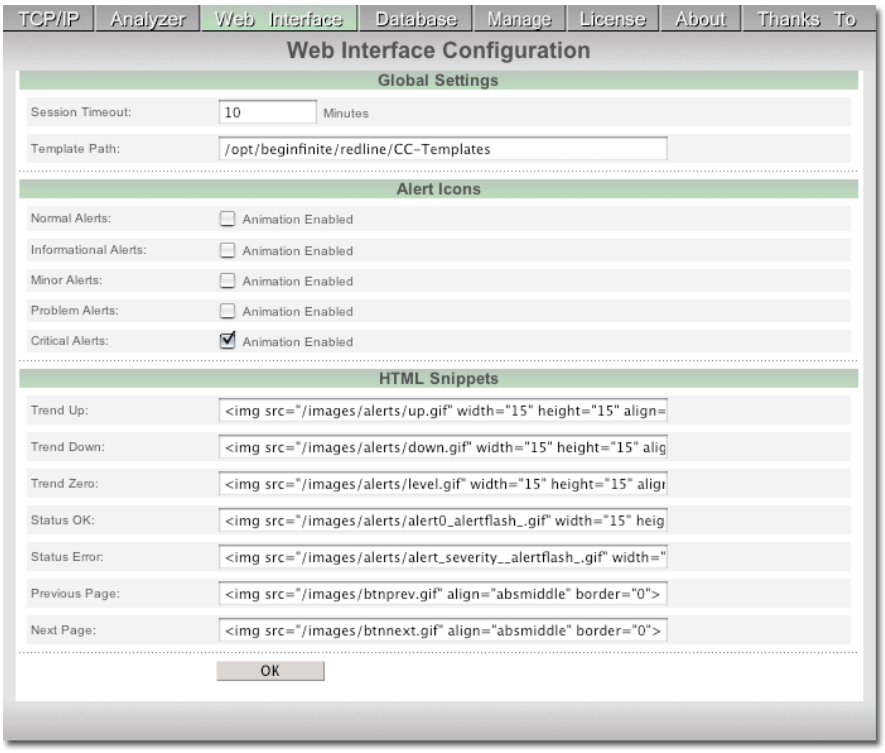
Web Interface

This screen allows administrators to configure the elements of the Redline web interface easily. The elements here can be edited, configured and checked using standard HTML editors like DreamWeaver or GoLive.



Global Settings

- Session Timeout: Minutes
- Template Path

Alert Icons (with or without animation)

- Normal Alerts
- Informational Alerts
- Minor Alerts
- Problem Alerts
- Critical Alerts

Default Templates

- Content 1
- Content 2
- Content 3
- Content 4
- Content 5

HTML Snippets

- Trend Up
- Trend Down
- Trend Zero
- Status OK
- Status Error
- Previous Page
- Next Page

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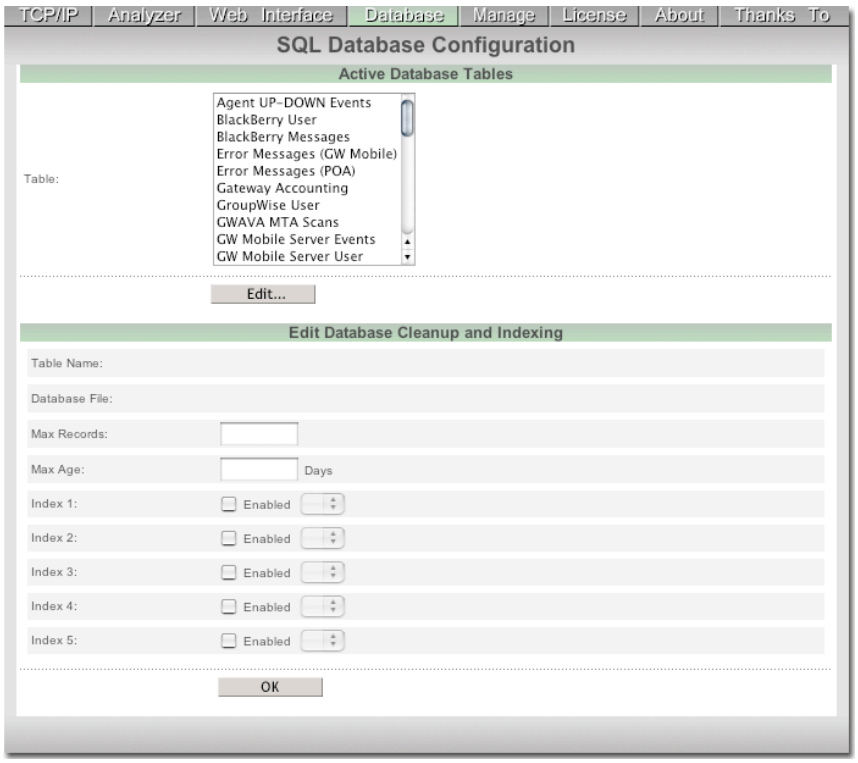
Database

New in Redline 2.5 is the ability to configure the database the software uses to maintain its records.

To customize a database set, please make a selection from the list of databases, then click **Edit**. The Edit Database Cleanup and Indexing portion of the screen will now show the name of the database being edited in the Table Name and Database File fields.

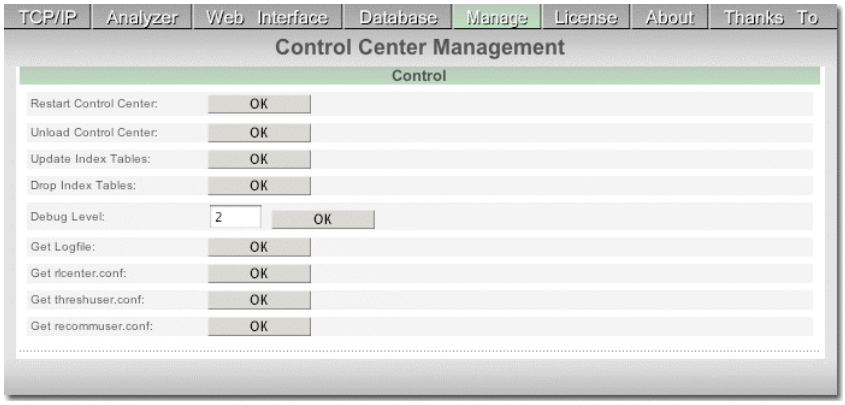
Administrators can now edit the **Maximum Records** and **Maximum Age** using the data entry fields provided. The five index items that can be **Enabled** from the list provided changes depending on the database selected.

Click **OK** when the edits are complete.



Manage

The Management configuration section allows Redline administrators to instantly restart or fetch major components of their Redline installations.



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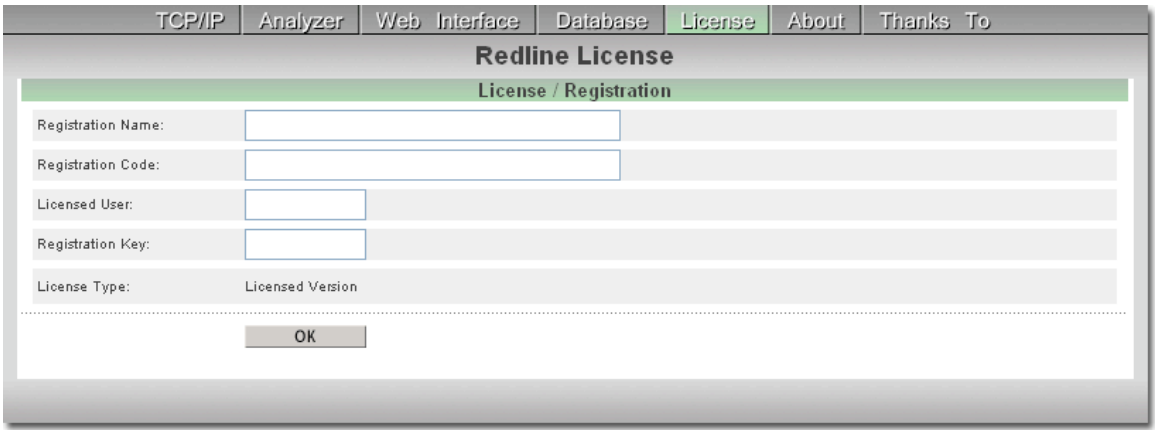
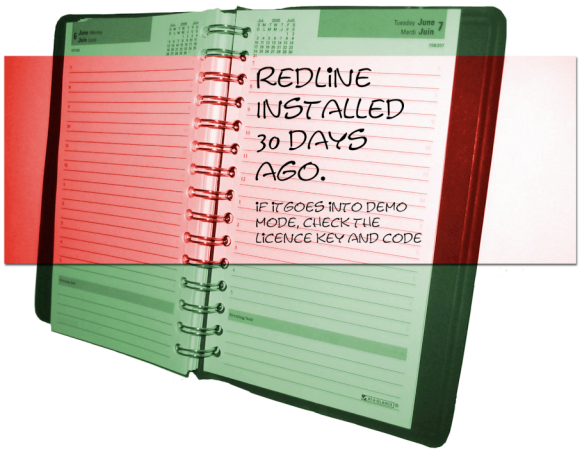
License



Enter your Registration Name, Registration Code, Licensed User and Registration Key exactly as communicated to you in the licensing information that is sent to you from GWAVA. You must enter all pieces of information correctly. Invalid keys and codes or fields left blank will cause Redline to remain in Demo or By-Pass mode.



- **Important** - The registration name and registration code are used as authentication credentials between the Redline agents and the Control Center. If you change the registration name or code in the Control Center, change these settings in all Redline agents also to keep Redline from reentering Demo or By-Pass mode.

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About

This informational screen presents information about your Redline installation. It is useful for determining which build version is in use and other general debugging requirements. These include:

Agent Listener

- Status:
- Threads:
- IP Address
- IP Port
- Monitored Host
- Monitored GW Agents:
- Last Hosts ID
- Last Agent ID

HTTP Server

- Status
- Threads
- IP Address
- IP Port
- Idle Timeout
- Recv Buffer Size

Time Services

- Status

Graph Service

- Status
- Graph Interval
- Active Graphs:
-

- Analyzer Service
- Status
- Interval

Alert Service

- Status
- Check Interval
- Severities Max:
- Thresholds
- Severities

Storer Service

- Status
- Interval

Config Path

Config File

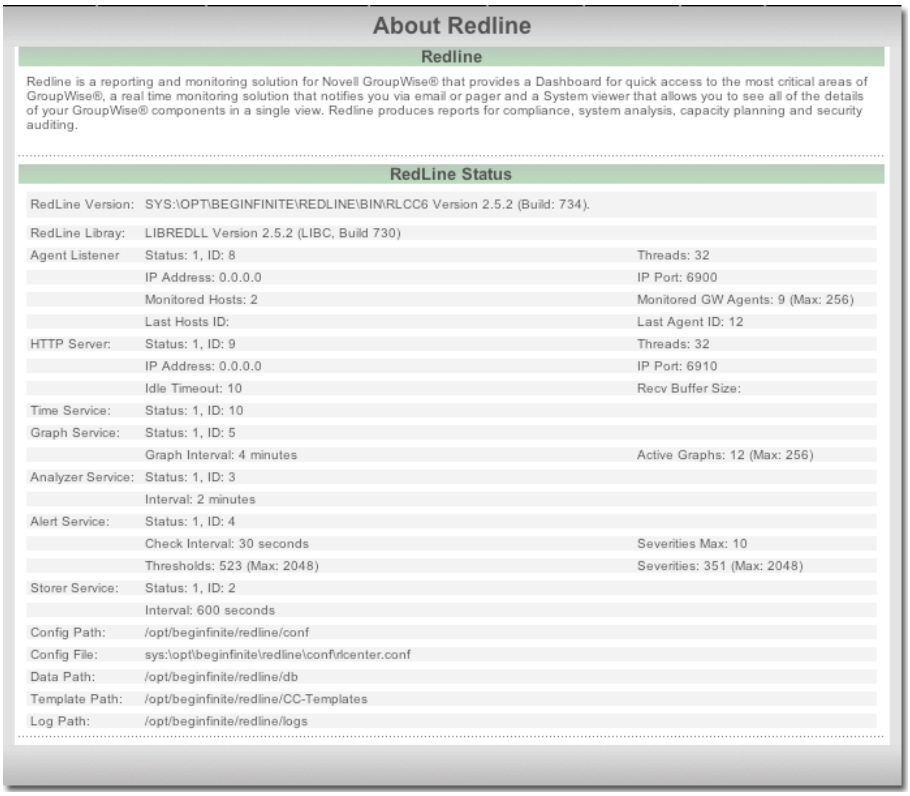
Data Path

Template Path

Log Path

Redline Version

Redline Library


About Redline
Redline
Redline is a reporting and monitoring solution for Novell GroupWise® that provides a Dashboard for quick access to the most critical areas of GroupWise®, a real time monitoring solution that notifies you via email or pager and a System viewer that allows you to see all of the details of your GroupWise® components in a single view. Redline produces reports for compliance, system analysis, capacity planning and security auditing.
RedLine Status
RedLine Version: SYS:\OPT\BEGINFINITE\REDLINE\BIN\RLCC6 Version 2.5.2 (Build: 734).
RedLine Libray: LIBREDLL Version 2.5.2 (LIBC, Build 730)
Agent Listener Status: 1, ID: 8 Threads: 32
IP Address: 0.0.0.0 IP Port: 6900
Monitored Hosts: 2 Monitored GW Agents: 9 (Max: 256)
Last Hosts ID: Last Agent ID: 12
HTTP Server: Status: 1, ID: 9 Threads: 32
IP Address: 0.0.0.0 IP Port: 6910
Idle Timeout: 10 Recv Buffer Size:
Time Service: Status: 1, ID: 10
Graph Service: Status: 1, ID: 5
Graph Interval: 4 minutes Active Graphs: 12 (Max: 256)
Analyzer Service: Status: 1, ID: 3
Interval: 2 minutes
Alert Service: Status: 1, ID: 4
Check Interval: 30 seconds Severities Max: 10
Thresholds: 523 (Max: 2048) Severities: 351 (Max: 2048)
Storer Service: Status: 1, ID: 2
Interval: 600 seconds
Config Path: /opt/beginfinite/redline/conf
Config File: sys:\opt\beginfinite\redline\conf\rlcenter.conf
Data Path: /opt/beginfinite/redline/db
Template Path: /opt/beginfinite/redline/CC-Templates
Log Path: /opt/beginfinite/redline/logs

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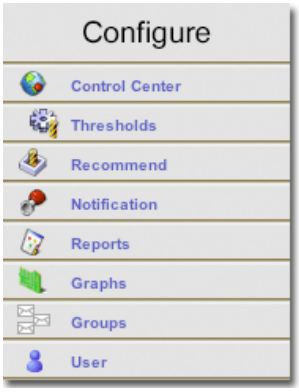
Thresholds



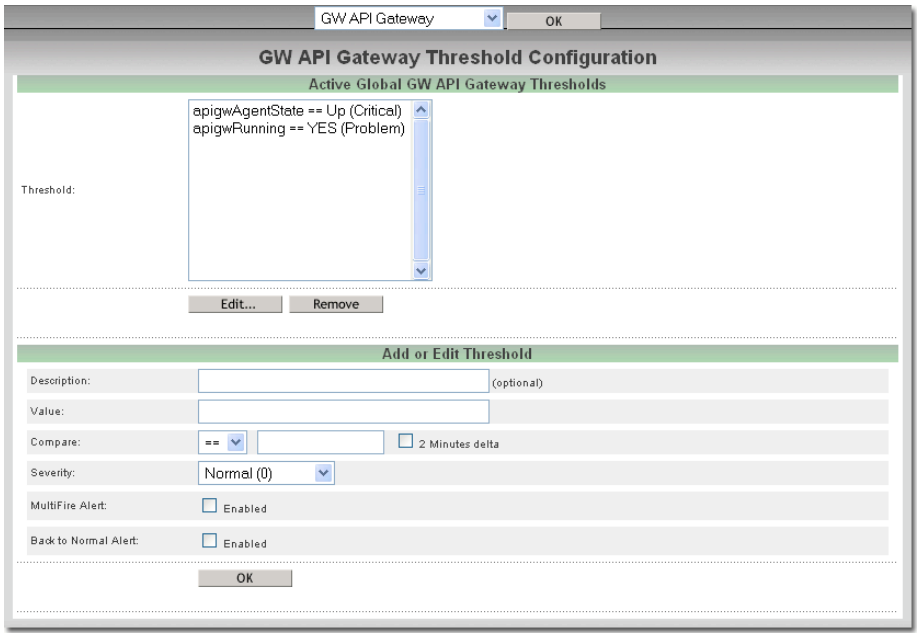
The thresholds configure the decision points for Redline's reporting and monitoring. Administrators can edit these settings to ensure that Redline reports only the data that is best needed for decision making. Choose the threshold needed for editing by using the drop down menu at the center top of the screen to select the integrated component. The thresholds configured for that component will then appear

Motivation and usage

Redline is a monitoring system. It will monitor and present any and all alerts it is set to report. Redline makes no discriminations between informational and critical alerts; consequently, if you have set your Redline system to report every event to you, it will. If your thresholds are set flash unending strings of alerts, then configuring the thresholds of alerts will let you choose what qualifies as a critical alert for your message system.

Two sections

There are two sections on the thresholds screens: the **Thresholds** portion on the top and the **Add or Edit Threshold** portion on the bottom.



Edit

To edit an existing threshold, select it from the drop down list then click the **Edit** button beneath it. The screen will refresh and the required record will then appear in the **Add/Edit Threshold** editing box below. Administrators can change the **Name, Value, Severity,** and **Delta** as needed. Click **OK** to apply the changes.

Multifire Alerts Interval determines how often identical alerts will be broadcast. The default is 10 minutes. Enabling the **Back to Normal Alerts** checkbox will send an alert saying that the item is back within tolerance. Selectively enabling and disabling Multifire and back to normal alerts can speed diagnosis

To delete a threshold, choose the item from the list at the top and click the **Remove** button. **Note**: You will not be asked to confirm this choice. The editing process is similar for the POA, GWIA, WebAccess, GWAVA, Guinevere, API GW, Messenger and Message Archive tabs.

Creating new Thresholds

Use the Redline schema files as a reference for all possible usable values. The schema files can be found in /opt/beginfinite/redline/db/schema but ensure sure that you do not alter the schema files.

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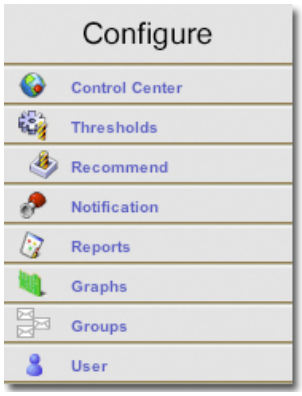
Recommendations Configuration



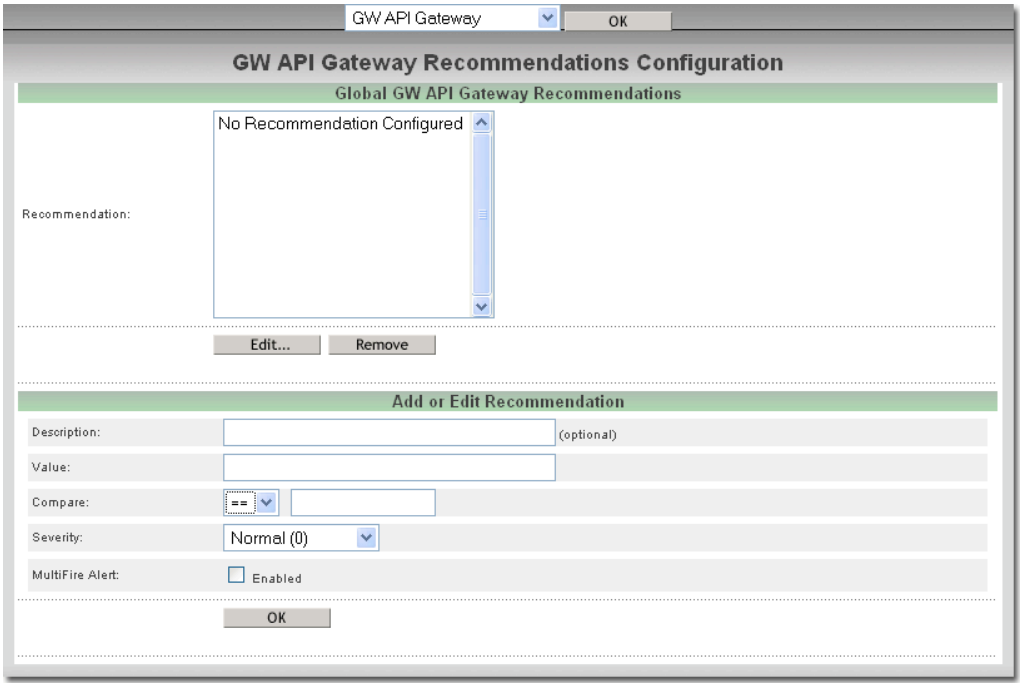
The recommendations configure the decision points for Redline's reporting and monitoring. Administrators can edit these settings to ensure that Redline reports only advises ranges of solutions that are best needed for decision making. Choose the recommendations need by using the drop-down menu at the center top of the screen to select the integrated component. The recommendations configured for that component will then appear.

Two sections

There are two sections on the thresholds screens: the **Recommendations** portion on the top and the **Add or Edit Recommendation** portion on the bottom.

Edit

To edit an existing recommendation, select it from the drop down list then click the **Edit** button beneath it. The screen will refresh and the required record will then appear in the **Add/Edit** editing box below. Administrators can change the **Name, Value, Severity,** and **Delta** as needed. Click **OK** to apply your changes.



To delete a recommendation, choose the item from the list at the top and click the **Remove** button. **Note**: You will not be asked to confirm this choice. The editing process is similar for the other recommendation screens in this section.

Multifire Alerts Interval determines how often identical alerts will be broadcast. The default is 10 minutes. Enabling the **Back to Normal Alerts** checkbox will send an alert saying that the item is again within tolerance. Selectively enabling and disabling **Multifire** and back to normal alerts can speed diagnosis

Remind me: What's the difference between a Recommendation and a Threshold?

Recommendations suggest a desirable value, rather than 'alert' an administrator that a value is above or below tolerance, or invalid. These differ from thresholds which define when an alert should be generated because of a condition has been reached. Think of the thresholds as the 'Check Engine' light in your car while the recommendations are the hash marks on a dial suggesting a range of operations.

Creating new Thresholds

Use the Redline schema files as a reference for all possible usable values. The schema files can be found in /opt/beginfinite/redline/db/schema but ensure sure that you do not alter the schema files.

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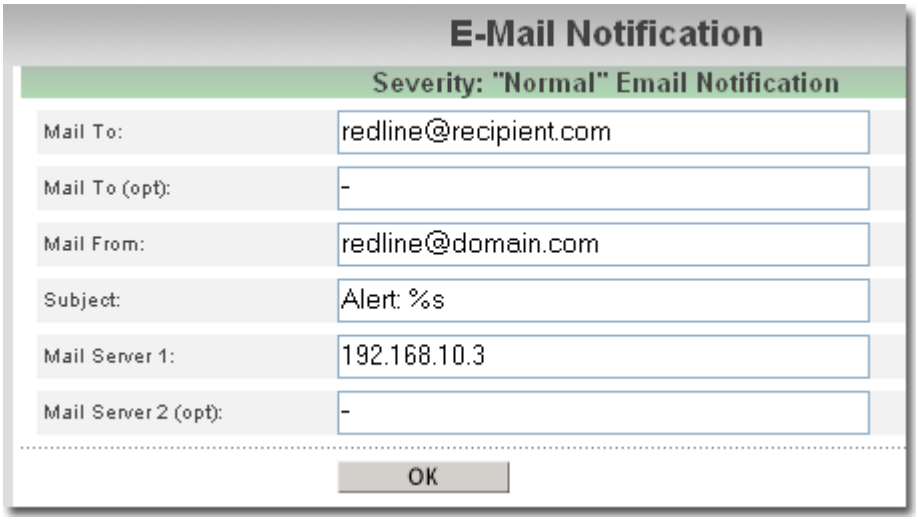
Notification

The Notification screen of the Redline Configuration options has four tabs: **E-Mail,** the default, **Broadcast, SNMP** and **API Folder.** The e-mail configuration screen is used to determine who is sent e-mail messages when 'severity events' occur. It may be that administrators may set their Redline systems to not send e-mails for low-level notification events. The **Notification** options that can be set are:

- **Mail to (Primary)** – primary e-mail address to mail notification to
- **Mail to (Optional)** – secondary e-mail address, optional
- **Mail From** - E-mail address of Redline mailer
- **Subject** – Subject of message. Use %s to represent the actual alert
- **Mail Server 1** – IP address of mail server that is configured to accept messages.
- **Mail Server 2** - (Optional)

Click the **OK** button to apply your edits.

Broadcasts



Notification settings for individual severity levels can also be configured for Broadcasts in the same way they are customized for e-mails. Click the **Broadcasts** tab and enter the needed messaging information for the desired severities.

Please note that broadcasts currently only functions on an RLCENTER running on NetWare.

Broadcasting information that can be set for each severity level includes:

- **Broadcast to** – To whom the e-mail broadcast is sent
- **Broadcast to (Optional)** – Secondary or CC'd recipients of the broadcast
- **Message Text** – Text to be included in the mail broadcast

Click the **OK** button to apply your edits.

SNMP

Notifications can also be sent via SNMP. Options for configuration here include: the **Community String** (a string of characters to identify sources for SNMP requests) the **server IP** for SNMP messaging and the **Message Text**.

API Folder

Notifications for API Folders may also be customized in the same way E-Mail and Broadcasts can be customized for specific levels of severity. Begin by choosing the needed severity level and input the needed **File Name** and **Message Text**. Click the **OK** button to apply your edits. Redline can create a file with a message on hard discs**.** These files can be used for processing by other applications to create pager, fax or voice messages.

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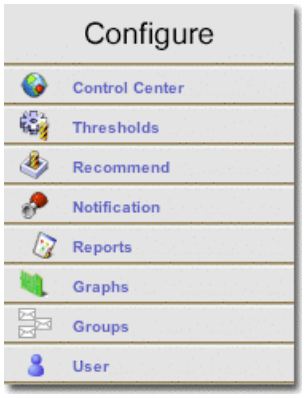
Reports



The reports and graphs generated by Redline can also be customized. Administrators can see which integrations have a report associated with them, by using the drop-down menu at the center top.

All reports, be they **list reports, compliance reports, business reports,** or **comparison reports** can be customized. The reports have five elements:

- The template file name
- The category (List Reports, Compliance Reports, Business Reports and Comparison Reports)
- Title
- The Global SQL Query
- The Template

Templates are in HTML and can be edited manually. Below is a sample template for HIPAA compliance analysis. The templates are populated with variables.

Gloss	HIPAAConfigMTA.xml
Report Description Variables are represented by str between dollar signs. Note that the formatting is in X for ease of editing.	 <table width="99%" border="0" cellspacing="0" cellpadding="0"> <tr><td> <font face="Arial, Helvetica, sans-serif" size="-1"> This Report shows the current configuration of Domains in your enterprise. HIPAA Security Rule as described in section 164.308, Technical Safeguards, requi periodic Evaluation of systems to ensure ongoing compliance as well as response periodic changes to the security architecture of an organization. The contents of this report should be evaluated against current policies and best practices. You may also want to set recommendations within Redline to ensure ongoing com through the alerting features. </td></tr> </table> <?ccscript contentpage("MTA", "snippets/ConfigSnippetMTA.xml"); ?>

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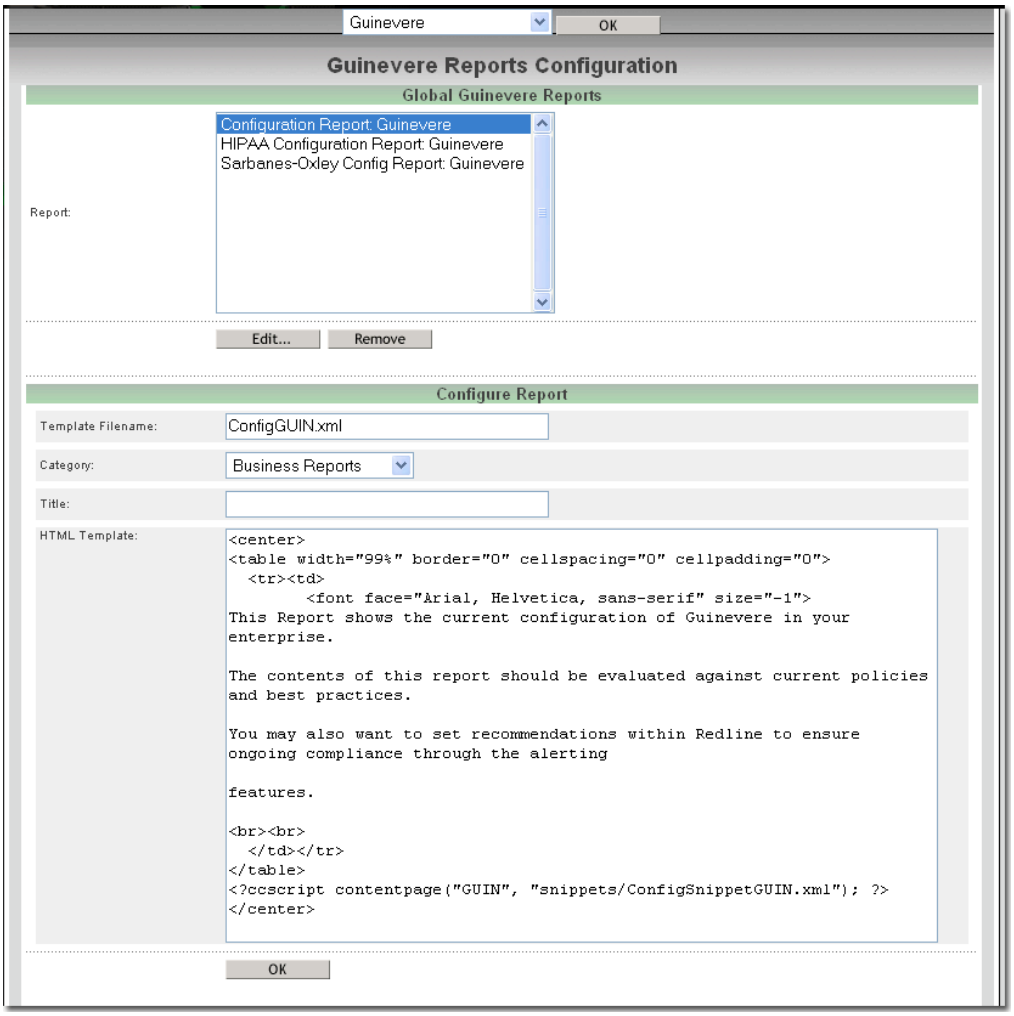
To edit a template, select it from the list in the **Available Reports** window. (The name of this box changes depending on which elements have been chosen for configuration.) Click **Edit** or **Remove** as needed.

The screen will refresh. The entry fields in the **Configure Report** window will now be populated with the details from your selected report. Click **OK** to apply your changes. The editing process is similar for all reports. To delete a report, choose it from the Available Reports window and click **Remove**.

Note: You will NOT be asked to confirm this.



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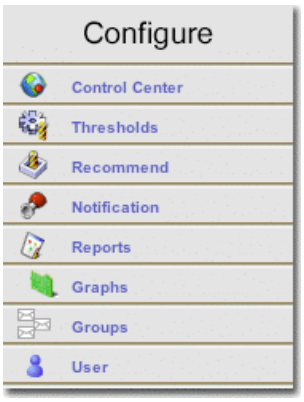
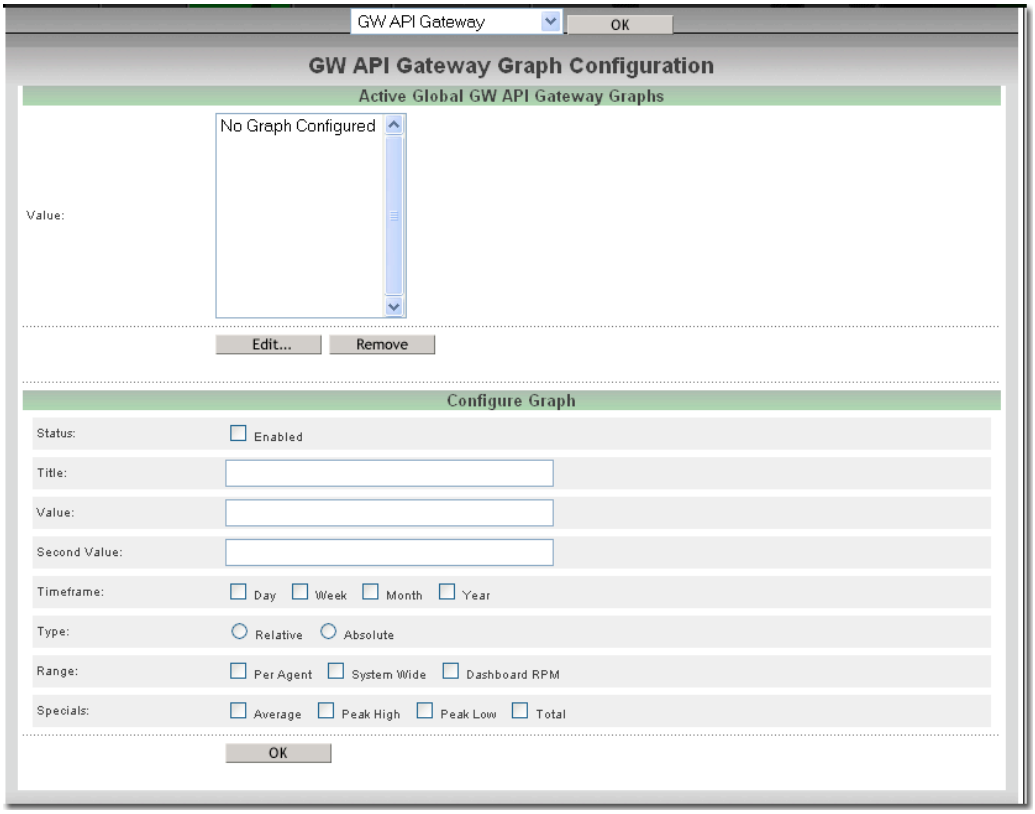
Graphs

As reports can be customized, so can the graphical reports in Redline. The Graphs tab in the Redline configuration section presents a window similar to the Reports configuring window mentioned above. Elements that can be customized in graphs include:



- Status: Enabled/Disable
- Title
- Value
- Second Value
- Timescale; Day, Week, Month, Year
- Type: Relative or Absolute -
- Range: Per Agent, System Wide, Dashboard RPM
- Specials: Average, Peak High, Peak Low, Total



To edit a graph, select it from the drop-down list at the top of the screen. The name of this box changes depending on which elements have been chosen for configuration. Click **Edit** or **Remove** as needed. **Note**: You will NOT be asked to confirm this.

Relative and absolute values

Relative values are used for counters that rise while absolute values count trends. Relative values may be used to count upwards, like the total number of messages processed or days of uptime, ie from the last measurement point. Absolute values are used to present historical data in series, for example, a graph showing the number of messages processed each day over the last month.

Range

The range of collected data can be set per graph.

- **Per agent** - Values for a particular agent.
- **System Wide** - Adds all values of the agent types
- Other selectable characteristics include **Average, Peak High, Peak Low** and **Total**.

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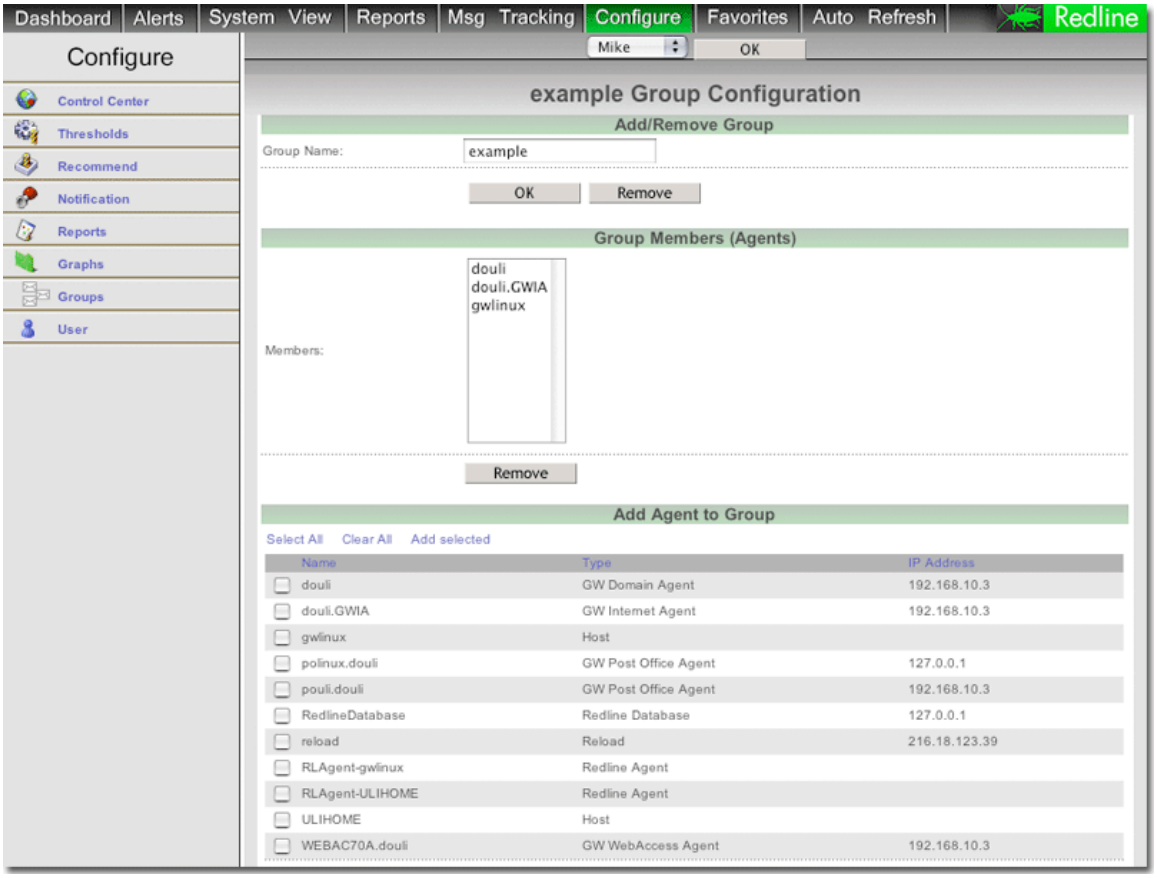
Groups

The groups in the Groups Tab in System View can created and edited here. Begin by entering a name in the Groups Name data entry field and click **OK**.

Upon clicking OK, the screen refreshes to present a list of available agents. Select the needed agents using the checkboxes then Add Selected. This refreshes the screen and the members list will now populate.

Editing and Removing

To edit an existing group, enter the group name in the data entry field and click OK. This refreshes the screen to preset the member list. Add or remove agents as needed then click **OK**. To remove an existing group, enter that name in this field and click **Remove**.



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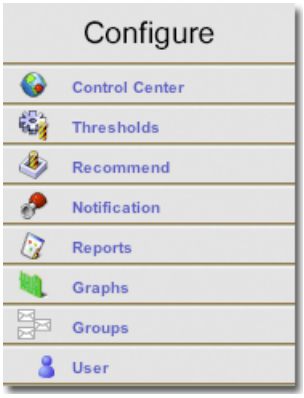
User



The User section of the Configure section has three tabs: **Add/Edit** user, **User Log** and **Favorites**.

To create a new Redline user, enter a **Username, Password, Full Name, E-Mail Address** and an optional preferred **Start Page**. You can also configure security settings such as **Intruder Lockout**. This counts the number of failed log-ins. Enter a value in the **Minutes** field to not accept further log-in attempts at this account for the chosen number of minutes. Finally, the number of **Rows per page** can be set as a preference by entering a value in the provided entry field.

Two additional features on this page are **User Disabled** and **Administration Rights**. These are both off by default. User disabled is triggered when the user logs into the account too often with the wrong password. Administrators can also disable a user by enabling this checkbox. To reactivate a user, uncheck the box. Admin rights give a Redline administrator the ability to make edits.

- Redline accounts without this checkbox enabled can see all the information reported by Redline, but cannot make any changes to settings or configurations.

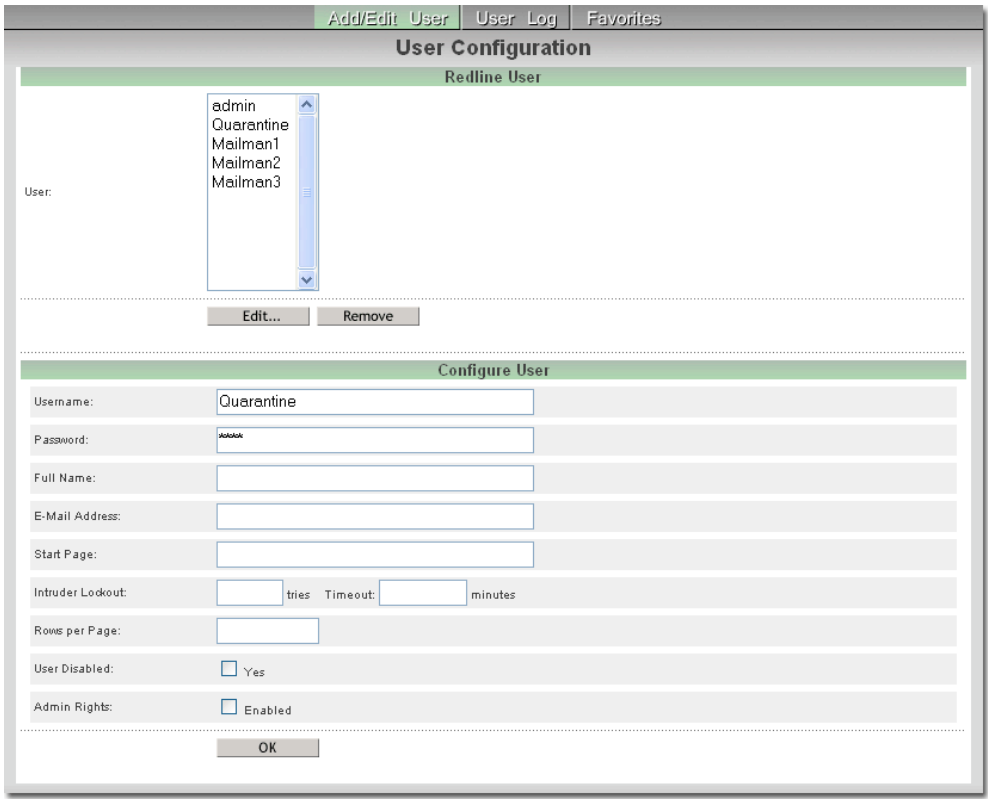
To change a user's settings or delete a user, select a user from the Redline User list and click **Edit** or **Remove**. Click **OK** to apply your changes.

User Log

Clicking this tab presents recent Redline user activity. It is similar to the Redline Audit Report in the Reports section.

User Favorites

This tab adds, edits or deletes entries in user favorites menus.



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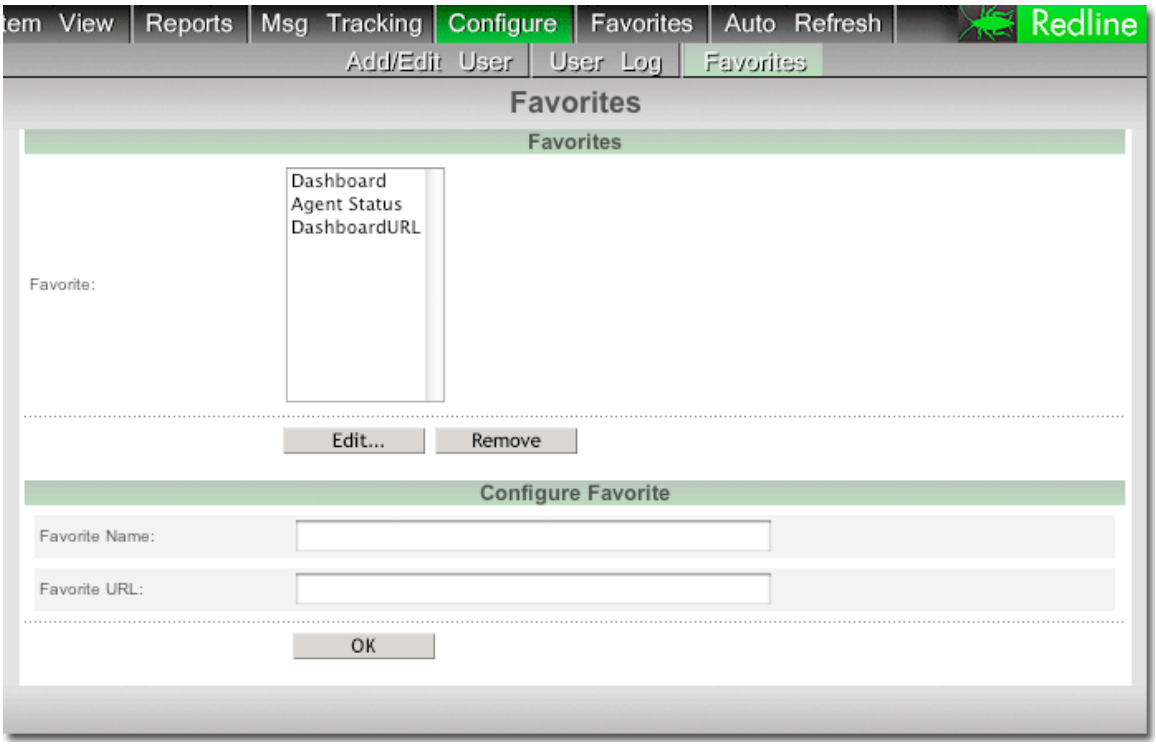
Favorites



The Favorites screen allows Redline users and administrators to add to the Favorites menu as well as change or delete those links. To add a link, fill out the **Favorite Name** and **Favorite URL**. To **edit** or **remove** a favorite, select a favorite from the list and click the needed button. Click **OK** when done.

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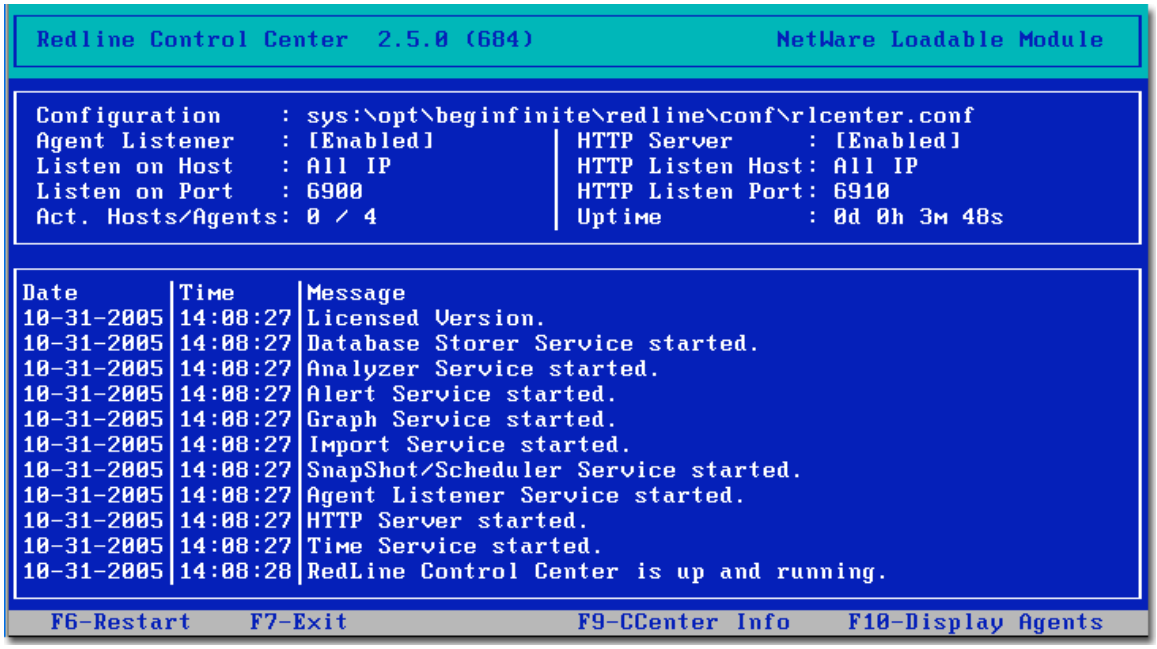
The Redline NetWare Interface


Redline Control Center 2.5.0 (684) NetWare Loadable Module
Configuration : sys:\opt\beginfinite\redline\conf\rlcenter.conf
Agent Listener : [Enabled]
Listen on Host : All IP
Listen on Port : 6900
Act. Hosts/Agents: 0 / 4
HTTP Server : [Enabled]
HTTP Listen Host: All IP
HTTP Listen Port: 6910
Uptime : 0d 0h 3m 48s
Date Time Message
10-31-2005 14:08:27 Licensed Version.
10-31-2005 14:08:27 Database Storer Service started.
10-31-2005 14:08:27 Analyzer Service started.
10-31-2005 14:08:27 Alert Service started.
10-31-2005 14:08:27 Graph Service started.
10-31-2005 14:08:27 Import Service started.
10-31-2005 14:08:27 SnapShot/Scheduler Service started.
10-31-2005 14:08:27 Agent Listener Service started.
10-31-2005 14:08:27 HTTP Server started.
10-31-2005 14:08:27 Time Service started.
10-31-2005 14:08:28 RedLine Control Center is up and running.
F6-Restart F7-Exit F9-CCenter Info F10-Display Agents

The Redline Control Center has many command line parameters that can be used to debug and customize your Redline installation system. In Windows, the command center appears as a DLL, in Linux, it is a Daemon. The NLM version is pictured above.

Commands available at the Control Center NLM

- **F6** - Reload the configuration file.
- **F7** - Exit
- **F9** - Control Center Information
  - Cycle 1
    - Configuration
    - Agent Listener
    - Listen on Host
    - Listen on Port
    - Active Hosts/Agents
    - HTTP Server
    - HTTP Listen Host
    - HTTP Listen Port
    - Uptime
  - Cycle 2
    - Configuration
    - Debug level
    - Analyzer Interval
    - Database schema
    - Active Hosts/Agents
    - Alert Interval
    - Storer Interval
    - Loaded Modules
    - Uptime
- **F10** - Display agents registered to the Control Center.

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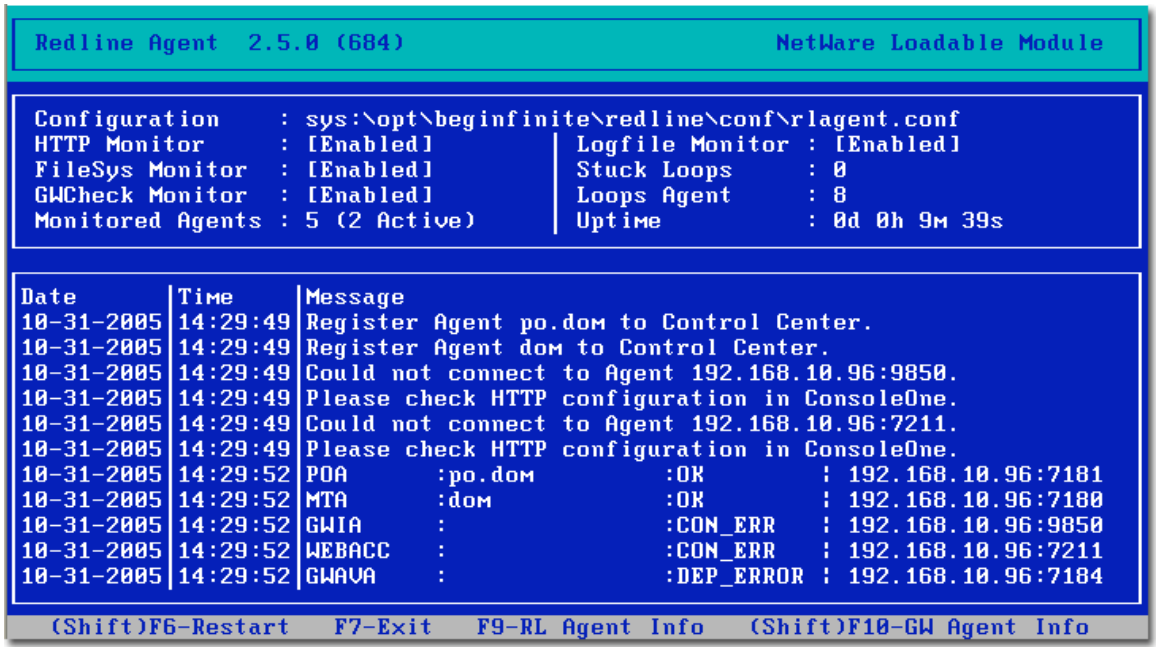
Commands available at the Redline Agent NLM


Redline Agent 2.5.0 (684) NetWare Loadable Module
Configuration : sys:\opt\beginfinite\redline\conf\rlagent.conf
HTTP Monitor : [Enabled]
FileSys Monitor : [Enabled]
GWCheck Monitor : [Enabled]
Monitored Agents : 5 (2 Active)
Logfile Monitor : [Enabled]
Stuck Loops : 0
Loops Agent : 8
Uptime : 0d 0h 9m 39s
Date Time Message
10-31-2005 14:29:49 Register Agent po.dom to Control Center.
10-31-2005 14:29:49 Register Agent dom to Control Center.
10-31-2005 14:29:49 Could not connect to Agent 192.168.10.96:9850.
10-31-2005 14:29:49 Please check HTTP configuration in ConsoleOne.
10-31-2005 14:29:49 Could not connect to Agent 192.168.10.96:7211.
10-31-2005 14:29:49 Please check HTTP configuration in ConsoleOne.
10-31-2005 14:29:52 POA :po.dom :OK : 192.168.10.96:7181
10-31-2005 14:29:52 MTA :dom :OK : 192.168.10.96:7180
10-31-2005 14:29:52 GWIA : :CON_ERR : 192.168.10.96:9850
10-31-2005 14:29:52 WEBACC : :CON_ERR : 192.168.10.96:7211
10-31-2005 14:29:52 GWAVA : :DEP_ERROR : 192.168.10.96:7184
(Shift)F6-Restart F7-Exit F9-RL Agent Info (Shift)F10-GW Agent Info

The Redline Agent has many command line parameters that can be used to debug and customize your Redline installation system. The NLM version is pictured above.

- **F6** - Reload configuration
- **Shift F6** - Manual monitor loop. This forces the Redline Agent to immediately gather current data from the intergrated components, instead of waiting for the 2 minute cycle configured by default.
- **F7**- Exit
- **F9** - This function changes the top portion of the RLAG screen
- Cycle 1
  Configuration
  Debug level
  Database Schemas
  CCenter
  Monitored agents
  Agent Interval
  Load Modules
  Loops Agent
  Uptime
- Cycle 2
  Configuration
  HTTP Monitor
  FileSys Monitor
  GWCheck Monitor
  Monitored Agents
  Logfile Monitor
  Stuck Loops
  Uptime
- **F10** - Enabled integrations
- **Shift F10** - both enabled and disabled integrations.

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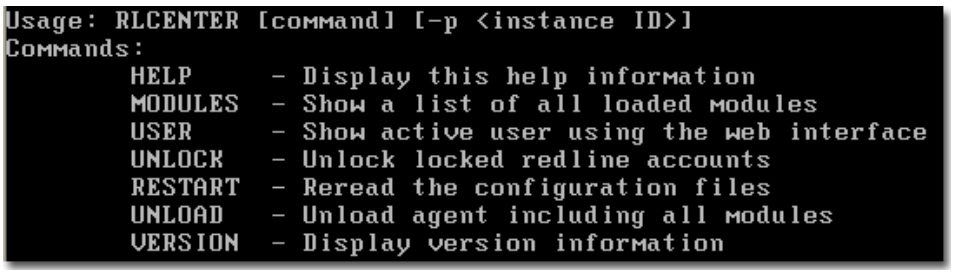
Console level commands (valid for NetWare, Linux) for Redline Control Center

Short form commands are case sensitive.

- **-b --buffer** Maximum Receive buffer size. This is the buffer used to receive data from Redline Agents. The default value is 1048576 (1MB)
- **-i --interval** Interval during which the Agent writes the current state in the XML files:
  600 second default
- **-c --configfile.** This specifies which configuration file is used. It is a full path, including the configuration filename.
- **-d --debug** Enables Debug mode. Set the loglevel if you specify the startup parameter -d [i] on the command line in the startup files. Example: -d1 enables debug level 1. Seven debug levels are available:
  - **0** Informational
  - **1** Error
  - **2** HTTP related messages
  - **3** Logfile related messages
  - **4** File system related messages
  - **5** All of the above
  - **6** Debug mode. In debug mode a logfile is written to /opt/beginfinite/redline/logs (rlag.log for the Agent, rlcc.log for the Control Center) and debug messages are written to the Logger Screen on a NetWare 6.x.
- **-D --data** This specifies the path where the database files are located.
- **-t --cctemplates** Path to HTML Templates
- **-l --logfile** This specifies the logfile path.
- **-m --maxagents** Maximum number of agents that can be monitored by a single redline agent. Default: 128
- **-g --maxgraphs** Maximum number of graphs that can be generated
- **-r --recommlines** Maximum number of recommendations usable, also called recommlines
- **-T --threshlines** Maximum number of thresholds usable, or threshlines.
- **-a --analyzer** Analyzer interval used to generate trend and delta values. The default is five minutes
- **-S --severities** Maximum number of severities manageable. The default is 10
- **-s --show** Show GUI on Linux
- **-y --schema** Show Redline Schema activities
- **-h --help** Help
- **-w --trendweight** The history or trend weight compared to the current value for trend analysis. The default is ten minutes. The effect if this is that historical data weighs 10 times more than the current value.

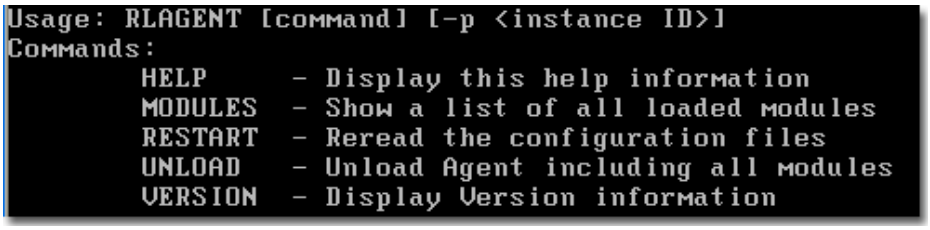
Redline 2.5 adds some basic console commands. Typing RLCENTER and the subsequent modifiers will perform the following operations:

- **Help** - Typing rlcc help at the console presents a list or Redline console level commands
- **Modules** - rlcLists all loaded Redline modules
- **User** - Lists all users logged into the web interface
- **Unlock** - Unlock locked Redline accounts
- **Unload** - Unload agents and all modules
- **Version** - This presents version information about your Redline software


Usage: RLCENTER [command] [-p <instance ID>]
Commands:
HELP - Display this help information
MODULES - Show a list of all loaded modules
USER - Show active user using the web interface
UNLOCK - Unlock locked redline accounts
RESTART - Reread the configuration files
UNLOAD - Unload agent including all modules
VERSION - Display version information

Typing RLAGENT and the subsequent modifiers will perform the following operations:

- **Help** - Typing rlcc help at the console presents a list or Redline console level commands
- **Modules** - rlcLists all loaded Redline modules
- **Restart** - Reloads the configuration files
- **Unload** - Unload agents and all modules
- **Version** - This presents version information about your Redline software


Usage: RLAGENT [command] [-p <instance ID>]
Commands:
HELP - Display this help information
MODULES - Show a list of all loaded modules
RESTART - Reread the configuration files
UNLOAD - Unload Agent including all modules
VERSION - Display Version information

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See Appendix 1 for additional options for Linux and Windows

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Redline in a NetWare Cluster

Redline fully supports an installation in a NetWare Cluster. This examples in this section assume:

- A NetWare Cluster
- A shared volume named „GW“
- The plan is to run Redline on the GW volume.

Redline itself is a POSIX compliant NLM. In practical terms, this means Redline does understands little about volumes. SYS is the virtual root that you might know from UNIX/Linux. To enable access to the GW volume for Redline, create a folder on sys representing the GW volume. In our scenario we will create the following folder:

```
SYS:\mnt\posix\gw
```

Next, create a file called /etc/pathtab. This is similar to the file /etc/fstab on Linux. In this file you can specify mountpoints. We need the following entry in this file:

```
/mnt/posix/gw gw:\
```

The format of a pathtab entry is always like this:

```
[Folder in POSIX stype] [NetWare Volume:\Path]
```

Make sure that the POSIX style folder uses forward slashes only. The next step is to copy Redline from SYS to the GW Volume. Make sure you copy the entire folder. If you only want to run the Redline Agent, it is enough to copy the following files and folders only:

```
/opt/beginfinite/redline/bin/rlagload.nlm
/opt/beginfinite/redline/bin/rlag6.nlm
/opt/beginfinite/redline/bin/libredll.nlm
/opt/beginfinite/redline/bin/RLAG.NCF
/opt/beginfinite/redline/conf/rlagent.conf
/opt/beginfinite/redline/db/schema/*
```

Before starting Redline, remove the old search path and create a new one so that Redline loads.

```
SEARCH DEL X    (X is the number of the search path which points to SYS:\opt\beginfinite\redline\bin)
SEARCH ADD GW:\opt\beginfinite\redline\bin
```

Remember to edit your AUTOEXEC.NCF, otherwise the old search path is back after the server reboots.

Configure the Control Center

You need to edit your RLCC.NCF and rlcenter.conf files. Edit the file RLCC.NCF now and change the path to the config file:

```
rlccload -c GW:\opt\beginfinite\redline\conf\rlcenter.conf -d2
```

Please use a NetWare style path to specify the config file.If you want to load the Control Center into a protected address space, change the lone in RLCC.NCF as shown here:

```
load protected rlcc6 -c GW:\opt\beginfinite\redline\conf\rlcenter.conf -d2
```

The RLCCLOAD.NLM loader is used to avoid an AbEnd on older versions of NetWare only. It checks if the minimum required CLIB and LIBC versions are installed on the server. If not, they print a message on the screen and stop loading Redline. If this happens you need to update your Server to the latest support pack (NetWare 5.1SP8, NetWare 6.5SP3 or higher, NetWare 6.0SP5) and on NetWare 6.0 you need to apply a library patch (nwlib6c.exe). You can request this patch from Novell Support or from GWAVA.

The second file is rlcenter.conf. If you open this file you see the followin lines:

```
LogFilePath=/opt/beginfinite/redline/logs
DataPath=/opt/beginfinite/redline/db
ConfigPath=/opt/beginfinite/redline/conf
```

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```
ImportPath=/opt/beginfinite/redline/imp
```

and some lines further down:

```
CCTemplatePath=/opt/beginfinite/redline/CC-Templates
```

Change these lines in a way that you add the mountpoint defined in /etc/pathtab:

```
LogFilePath=/mnt/posix/gw/opt/beginfinite/redline/logs
DataPath=/mnt/posix/gw/opt/beginfinite/redline/db
ConfigPath=/mnt/posix/gw/opt/beginfinite/redline/conf
ImportPath=/mnt/posix/gw/opt/beginfinite/redline/imp
...
...
CCTemplatePath=/mnt/posix/opt/beginfinite/redline/CC-Templates
```

In the [Global] part of the rlcenter.conf file it is possible to specify the IP addresses where the Control Center is listening on incoming data from the Agents. If you run the Control Center in a Cluster, you should use the virtual Cluster IP address here. This ensures that in a case of a fail over the agents are still able to send data to the Control Center.

Configure the Redline Agent

Edit RLAG.NCF and rlagent.conf. Edit the file RLAG.NCF now and change the path to the config file:

```
rlagload -c GW:\opt\beginfinite\redline\conf\rlagent.conf -d2
```

Use a NetWare style path to specify the config file.

Protected Address

If you want to load the Redline Agent into a protected address space, change the lone in RLAG.NCF as shown here:

```
load protected rlag6 -c GW:\opt\beginfinite\redline\conf\rlcenter.conf -d2
```

The RLAGLOAD.NLM loader is used to avoid AbEnds on older versions of NetWare only. This checks for the minimum required CLIB and LIBC versions are installed on the server. If not, a message is presented and Redline will not load. If this happens you need to update your Server to the latest support pack (NetWare 5.1SP8, NetWare 6.5SP3 or higher, NetWare 6.0SP5) and on NetWare 6.0 you need to apply a library patch (nwlib6c.exe). You can request this patch from Novell Support or from GWAVA.

The second file is rlagent.conf containing:

```
LogFilePath=/opt/beginfinite/redline/logs
DataPath=/opt/beginfinite/redline/db
```

Change these lines toadd the mountpoint defined in /etc/pathtab:

```
LogFilePath=/mnt/posix/gw/opt/beginfinite/redline/logs
DataPath=/mnt/posix/gw/opt/beginfinite/redline/db
```

Starting Redline

Start Redline from a shared cluster resource, and if you want, you can add the commands „rlcc“ or „rlag“ to the cluster resource scripts to make sure the agent and control center is running.

One Redline Agent per Cluster

If you use Host Monitoring and/or Redline Self Monitoring, you will see that Redline and the host registers itself with the node name. This needs to be changed to avoid alerts that don't exist. In the rlagent.conf file you can specify the name that the Agent should use for every integration. You need to add the parameter

```
AgentName=MYCLUSTER
```

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to your configuration file. Here is an example for the host and self monitoring entries:

```
[HOST]
Agent=Enabled
AgentName=MYCLUSTER

[REDLINE]
Agent=Enabled
AgentName=RLAGENT-MYCLUSTER
```

That way the Control Center knows that there needs to be one Redline Agent per Cluster, and only if no agent is running in the Cluster, an alert fires.

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Appendix 1: Logging and Debugging

Logging and debugging in Redline takes place in different places in Redline, and in different ways:

- Messages on the server screen
- Log files
- Memory monitor
- Web Based configuration report

Selecting the Configuration button and then clicking **About** presents the current settings and configuration values for your Redline Control Center installation. There are seven levels of debugging possible at the log level. These can be set at both the Redline Control Center and Redline Agent level.

Administrators can set the loglevel if by specifying the start-up parameter -d[i] on the command line in the startup files. Example: -d1 enables debug level 1.

- **0** Informational
- **1** Error
- **2** HTTP related messages
- **3** Logfile related messages (GroupWise Agent log files)
- **4** File system related messages
- **5** All of the above
- **6** Debug mode. In debug mode a logfile is written to /opt/beginfinite/redline/logs (rlag.log for the Agent, rlcc.log for the Control Center) and debug messages are written to the Logger Screen on a NetWare 6.x.

In Linux, the startup files are /etc/init.d/rlcenter and /etc/init.d/rlcenter. In NetWare, they are sys:\opt\beginfinite\redline\bin\rlag.ncf and sys:\opt\beginfinite\redline\rlcc.ncf. For Windows, simply edit the shortcut properties on the desktop.

Other command line switches include

Short form	Long form	Description
-c	**--configfile**	Specifies the path to the configuration file. The full path including filename is required.
-h	**--help**	Displays a help screen that shown all command line parameters
-s	**--show**	Shows a status screen on Windows and Linux
-d	--debug	Enables Debugging mode. Debug Mode 0 to 6 is possible
-l	--logfile	specifies the path to a agent logfile
-v	--version	Displays the version and build numbers of Redline

Examples of usage

On **Netware**, typing, RLCC6 -c <pathToRLCenter.CONF> will run RLCENTER with the specified configuration file.

On **Linux**, typing /opt/Beginfinite/redline/bin/rlagent –v will display the build and version.

On **Windows**, typing "C:\program files\Beginfinite\redline\bin\rlagent" –h will display the help screen.

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Appendix 2: Installation Work Sheet

Print this sheet. Fill out the fields for each GroupWise agent that must be monitored

Sheet Number

ServerName _____
NOS Agent Type _____
HTTPAddress _____
HTTPPort _____
HTTPUserName _____
HTTPPassword _____
Logging _____
Message Logging _____
GWCHECK _____

ServerName _____
NOS Agent Type _____
HTTPAddress _____
HTTPPort _____
HTTPUserName _____
HTTPPassword _____
Logging _____
Message Logging _____
GWCHECK _____

ServerName _____
NOS Agent Type _____
HTTPAddress _____
HTTPPort _____
HTTPUserName _____
HTTPPassword _____
Logging _____
Message Logging _____
GWCHECK _____

ServerName _____
NOS Agent Type _____
HTTPAddress _____
HTTPPort _____
HTTPUserName _____
HTTPPassword _____
Logging _____
Message Logging _____
GWCHECK _____

Server Name *- File Server Name*
HTTPAddress *- IP Address*
HTTPPassword *- Password for agent's HTTP server*
GWCHECK *- Yes or No, valid only for POA*

NOS *- Windows, Linux, Netware*
HTTPPort *- TCP Port of agent's HTTP server*
Logging *- Turned Logging on, set to Verbose. Enter Yes or No*

Agent Type *- MTA, POA, GWIA, WebAccess, Messenger, Messenger Archive, API Gateway*
HTTPUsername *- Username for accessing agent's HTTP server*
Message Logging *- Yes or No, valid only for MTA*
The RLAGENT configuration file needs this information for each component.

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Appendix 3: Redline-at-a-Glance

Dashboard

Alerts

System View

- Groups
- Agents
- Map

Reports

- Query
- Compliance
- Comparison
- List
- Business
- Scheduler

Configure

- Global
  - TCP/IP
  - Analyzer
  - Web Interface
  - Database
  - License
  - About
  - Thanks
- Thresholds
  - GW API Gateway
  - GW Async Gateway
  - GW DocView Agent
  - GW Domain Agent
  - GW Exchange Gateway
  - GW Internet Agent
  - GW Msgr Agent
  - GW Msgr Arch Agent
  - GW Notes Gateway
  - GW Post Office Agent
  - GW WebAccess Agent
  - GWAVA
  - Guinevere
  - Host
  - Notify Link Server
  - RIM Blackberry Server
  - Redline Database
  - Reload
  - Reveal
  - Toffa SyncWise
- Recommend
  - GW API Gateway
  - GW Async Gateway
  - GW DocView Agent
  - GW Domain Agent
  - GW Exchange Gateway
  - GW Internet Agent
  - GW Msgr Agent
  - GW Msgr Arch Agent
  - GW Notes Gateway
  - GW Post Office Agent
  - GW WebAccess Agent
  - GWAVA
  - Guinevere
  - Host
  - Notify Link Server
  - RIM Blackberry Server
  - Redline Database
  - Reload
  - Reveal
  - Toffa SyncWise
- Notification
  - E-Mail
  - Broadcast
  - SNMP
  - API Folder
- Reports
  - GW API Gateway
  - GW Async Gateway
  - GW DocView Agent
  - GW Domain Agent
  - GW Exchange Gateway
  - GW Internet Agent
  - GW Msgr Agent
  - GW Msgr Arch Agent
  - GW Notes Gateway
  - GW Post Office Agent
  - GW WebAccess Agent
  - GWAVA
  - Guinevere
  - Host
  - Notify Link Server
  - RIM Blackberry Server
  - Redline Database
  - Reload
  - Reveal
  - Toffa SyncWise
- Graphs
  - GW API Gateway
  - GW Async Gateway
  - GW DocView Agent
  - GW Domain Agent
  - GW Exchange Gateway
  - GW Internet Agent
  - GW Msgr Agent
  - GW Msgr Arch Agent
  - GW Notes Gateway
  - GW Post Office Agent
  - GW WebAccess Agent
  - GWAVA
  - Guinevere
  - Host
  - Notify Link Server
  - RIM Blackberry Server
  - Redline Database
  - Reload
  - Reveal
  - Toffa SyncWise
- User
  - Add/edit user
  - User Log
  - Favorites

Favorites

Auto-Refresh

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Appendix 4: Trouble Shooting

Ninety per cent of all support questions are related to the same source of problems: communication between the GroupWise Agents and the Redline Agent and between the Redline Agent and the Control Center. The following process can be used to troubleshoot these problems very quickly:

GroupWise / Redline Agent communication:

1. What agent should be monitored?

Important

- GWAVA requires monitoring of the MTA
- Guinevere requires monitoring of the GWIA
- API Gateway requires monitoring of the MTA
- The GWIA require the MTA and web access to be on the same domain server. The domain where the GWIA is in should be monitored by the same redline agent

2. What is the IP Address and Port of the HTTP Interface of the GroupWise or Third Party component?
3. Try to hit the HTTP Page with a standard web browser.
4. Make sure the page can be accessed WITHOUT https.
5. Use the exact same IP address and port that you typed in the browser in rlagent.conf. Avoid using 127.0.0.1.

Part 2: Redline Agent / Control Center communication

1. Start the Control Center.
2. Go to Configuration/General Settings/About to check if a valid license (Full / Time Bombed / Demo) is active.
3. Check that the Registration Code and Name match in rlagent.conf and rlcenter.conf.

- Now press **F10** on the Redline Agent Console Screen to determine whether communication is taking place properly
- After that, press **F10** in the Control Center to verify the installation

Tip: Use the installation work sheet in Appendix 2.

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Appendix 5: Report population periods

Compliance and Business reports are populated every cycle (default is 2 minutes per cycle). The information is retrieved from the embedded HTTP server of the component or alternatively the PATH parameter specified in RLAGENT. The few exceptions are listed in the table below. Most List and Query reports are populated within 2-3 cycles. You can view the accessing of log files by running the RLAGENT with the –d3 switch instead of the default –d2.

When "calculated from HTTP information" appears below, it means RLAGENT is finding the path by contacting the embedded HTTP server of the component and reading the Log File Path (or similarly named) setting.

Category	Report name	Population	Info Source
Query	Agent up down	2-3 cycles	HTTP or PATH, the actual UP-DOWN status is provided by the RLAGENT every cycle.
Query	Blackberry user, blackberry messages	2-3 cycles	Log file path calculated from PATH in RLAGENT.CONF
Query	Error message (poa), post office messages	2-3 cycles	POA log file, calculated from HTTP information.
Query	Gwava MTA scans	2-3 cycles	GWAVA log file, calculated from HTTP information.
Query	Internet agent messages	2-3 cycles	GWIA log file, calculated from HTTP information
Query	MTA message tracking	Indeterminate. When the information is flushed by Novell to file.	MTA Message Log files, calculated from HTTP information.
Query	Notifylink user	Each cycle	From HTTP information.
Query	Post office user	Within four cycles after the POA's scheduled GWCHECK for Redline runs.	These use the GWAUDIT.LOG, GWSTATS.LOG, MBSTATS.LOG generated by the PO.
Query	Redline alerts, redline audit log	Each cycle	From internal database information originally passed by RLAGENT.
Query	Toffa SyncWise user	Each cycle	From HTTP information.
Query	WebAccess login/logout, WebAccess user	2-3 cycles.	From WebAccess log file, calculated from HTTP information.
Query	Reveal audit address book, reveal audit messages	Every cycle as defined by Reveal.	Information is directly sent to RLCENTER by REVEAL
Query	<Agent> history: status, <agent> history service status.	Approximately once per hour	From HTTP information provided By agent.
Query	<Agent> history settings	Once per day, at midnight	From HTTP information provided by agent.
List	All INTERNET reports	2-3 cycles	From GWIA log file, calculated by HTTP information.
List	Top 20 largest mailboxes	Within 4 cycles after the POA's scheduled GWCHECK for Redline	These use the GWAUDIT.LOG, GWSTATS.LOG, MBSTATS.LOG generated by the PO.
List	All POST OFFICE reports, except f TOP 20 Largest Mailboxes	2-3 cycles	From the POA log file, calculated from HTTP information.

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List	WebAccess most active user	2-3 cycles	From WebAccess log file, calculated from HTTP information.
Compliance	NOVELL SELF AUDIT REPORT (CLA) plus any LICENSE information in other reports	Within 4 cycles after the POA's scheduled GWCHECK for Redline	These use the GWAUDIT.LOG, GWSTATS.LOG, MBSTATS.LOG generated by the PO.
Business	Post office message overview, problem analysis	2-3 cycles	From the POA log file, calculated from HTTP information.
Business	Internet agent message summary	2-3 cycles	From GWIA log file, calculated by HTTP information.
Business	User mailbox analysis	Within 4 cycles after the POA's scheduled GWCHECK for Redline	These use the GWAUDIT.LOG, GWSTATS.LOG, MBSTATS.LOG generated by the PO.

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Appendix 6: Move Redline to a non SYS volume in NetWare

Redline expects to be installed on the SYS volume in a NetWare system. Here are step by step instructions to move the installation to another NetWare volume. The example assumes that the new volume is named MYRL, and Redline is to be moved directly under the root. (e.g. MYRL:\opt\Beginfinite\Redline is the product path)

1. Stop the Redline Agent and Control Center.

2. Run NOREDL to remove the library NLMS from memory.

3. Type SEARCH. You will probably find you currently have a search path similar to:
SYS:\OPT\BEGINFINITE\REDLINE\BIN

Where 10 is the SEARCH PATH NUMBER and may vary on your system.

4. Type SEARCH DEL 10 (or whatever the number is). Type SEARCH again to verify that the SEARCH PATH has been removed.

5. MOVE the entire SYS:\OPT\BEGINFINITE\REDLINE tree to MYRL:\OPT\BEGINFINITE\REDLINE, including subdirectories.

6. Create a “dummy” (empty folders) SYS:\opt\Beginfinite\redline tree. In other words, create these three nested folders on SYS with no contents other than the folders.

7. Type EDIT SYS:\ETC\PATHTAB at the console. If prompted to create a new file, do so.

Add the following line to PATHTAB and save it:
/opt/beginfinite/redline<space>myrl:\opt\beginfinite\redline, where <space> is a space character.

This step enables POSIX mapping between the /opt/Beginfinite/redline mount point on SYS and the real Netware path on the Redline volume.

9. Type EDIT myrl:\opt\Beginfinite\redline\bin\rlcc.ncf . Correct the path, which currently points to SYS.

10. Type EDIT myrl:\opt\Beginfinite\redline\bin\rlag.ncf. Correct the path, which currently points to SYS.

11. Type SEARCH ADD MYRL:\OPT\BEGINFINITE\REDLINE\BIN

12. EDIT AUTOEXEC.NCF, and add the same search path as in Step 11, removing any old obsolete search path pointing to SYS:\OPT\BEGINFINITE\REDLINE.

You should now be able to run the RLCENTER and RLAGENT by typing RLCC and RLAG respectively. If more information on what step 7 actually did is needed, see Appendix 7.

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Appendix 7: POSIX, UNC, and NetWare Paths

There are four common file path formats that Redline uses.

- UNC (Universal Naming Convention) is used commonly on Windows and occasionally on NetWare. An Example of UNC is \\servername\volumename\path
- Mapped Drive format is used exclusively on Windows. An example is driveletter:\path1\path2
- NetWare path format is used exclusively on NetWare. An Example is volumename:\path1\path2, or server/volume:\path1\path2
- POSIX is used on Linux, but also is used on NetWare by Redline. A POSIX example is /path1/path2

Although Redline gathers the majority of its information via HTTP (and thus is file system independent), there are several circumstances when file paths must be specified (and hence the specific format used is important):

- The RLAGENT and RLCENTER configuration files specify directory paths for internal Redline directories such as the Database or Reports locations.
- The RLAGENT file may contain PATH specifications for integrated components such as BES, Guinevere, and the API Gateway that do not have HTTP servers.
- Behind the scenes, Redline gathers log file information from many agents (see Appendix 5 for a list). These log files must be located in an accessible location.

On Linux and Windows systems, the rules are fairly straightforward:

- For Linux boxes, all paths must be POSIX format. UNC, mapped drive, or NetWare paths will not function. When first installed, all your paths will be in POSIX, and you must keep them that way.
- For Windows, you may use either mapped drive or UNC format. POSIX, NetWare paths will not function correctly. When first installed, all your paths will be in mapped drive format, and you may alter them between mapped drive and UNC as desired.

On NetWare the situation is a bit more complicated. As long as Redline is installed in its default location, and all of the component agents are on the SYS volume, all should work perfectly. Otherwise:

- Regarding issue 1, if you actually need to change these paths (and in normal operation, even when moving Redline to another volume [Appendix 6], this is not needed, POSIX format is required. See below for the POSIX and NetWare path discussion
- Regarding issue 2: POSIX, NetWare, and UNC paths are all accepted in the PATH section. Hence, it is recommended that you use NetWare or UNC paths, and avoid the POSIX path issues described below
- Regarding issue 3: Redline 2.5 will automatically deal with NetWare Log File paths read from the HTTP server and convert them to POSIX format internally, creating mount points as needed (under sys:\mnt\posix\volumename). So, no extra configuration is normally needed. If you really want to understand more about mount points, read on.

NetWare and POSIX Path Conversion

Consider a standard Netware server, named MJBSERVER, with 2 volumes, SYS and DATA1. Now let's take the example of GroupWise being installed on this server, first on the SYS volume and then the DATA1 volume. For simplicity, we'll assume the GroupWise agents are all installed under a directory right off the root of the volume named GRPWISE.

Start with the GRPWISE directory on SYS, the Netware path is volume:\path, so in this case it is the straightforward SYS:\GRPWISE. POSIX format is /path1/path2. In this case it is simply /grpwise. The only change is to eliminate the volume name and changed to forward slashes.

Other examples of path conversions on SYS would be SYS:\system vs. /system, or SYS:\novell\webacc vs. /novell/webacc. It may be clear that an issue will arise shortly: namely that POSIX paths don't include volume names.

Let us move the GroupWise system to the volume DATA1

The NetWare path will still be straightforward. It will be DATA1:\grpwise. But what is the POSIX path? The way that Novell solved this problem was to allow users and programs to provide a "mapping" between POSIX paths and Netware volumes. More specifically, there is a file (which doesn't exist by default) in SYS:\ETC called PATHTAB which contains entries such as: POSIXPath<space>NetwarePath

You may specify as many as you wish, using any text editor you please. So the first thing an administrator might do is create an entry like this: /mygw<space>DATA:\

One might then expect that I could use /mygw/grpwise to refer in POSIX format to DATA1:\grpwise. Similarly if another directory was off the root of DATA1 called EXAMPLE. I could refer to in NetWare format as DATA1:\example and in POSIX as /mygw/example

There is one complication, that isn't so obvious: NetWare is really using a "mount point" to represent the NetWare volume. The "mount point" must always exist on SYS, and can be more or less arbitrarily named (but shouldn't collide with other directories on SYS)

This is a roundabout way of saying that whatever POSIX path specified in PATHTAB must have a corresponding directory structure on SYS. Let's take another step-by-step example.

- Create a POSIX path, and I have a directory named ANOTHEREXAMPLE off my GOOGLE volume. The NetWare path would be GOOGLE:\ANOTHEREXAMPLE
- Open SYS:\etc\pathtab, and add a mount point. Remember that I can name it how I want. In this case I'm going to decide that I want a POSIX path of /mnt/myothervol/anotherexample in the end.
- Add: /mnt/myothervol<space>GOOGLE:\
- I'll save PATHTAB, and then I will create off SYS the following: SYS:\mnt, SYS:\mnt\othervol. Their contents do not matter. A POSIX compliant program should now be able to use /mnt/myothervol/example and be redirected to GOOGLE\anotherexample.

How is this relevant to Redline?

- If you must change the internal configuration paths of Redline, they must be valid POSIX paths, constructed as above. If you look at Appendix 6, you'll note that this is exactly what is being done.
- If you have integrations that use the PATH entry in RLAGENT.CONF, and for some reason WANT to use POSIX, you can, but you must follow these guidelines.
- Redline handles the issue of log files transparently. All it does is create mount points named sys:\mnt\posix\volume name and create a PATHTAB entry for you. This is done behind the scenes, so normally you don't need to worry about it.

Appendix 8:Manually Configuring Redline

Redline can and should be configured through RLConfig and through the web interface. However, knowledgeable administrators can fine tune Redline manually. Also, currently RLCONFIG is not available for Linux. This appendix details how to accomplish these tasks.

Redline Agents

Before RLAGENT is run, its configuration file must be edited. The configuration file must include licensing information, identify how to contact RLCENTER, and specify how to contact integrated components such as the GroupWise agents. The configuration file is a simple text file and can be edited in any text editor. The locations are:

- **NetWare** sys:\opt\Beginfinite\redline\conf/rlagent.conf
- **Linux** /opt/Beginfinite/redline/conf/rlagent.conf
- **Windows** <ProgramFiles>\Beginfinite\redline\rlagwin.conf

Open the RLAGENT configuration file. This is a standard INI-style file with sections in square brackets [ ] and key=value parameters: One small difference is comments are specified with # not ;

Configure Licensing and RLCENTER communication

Here is an example using the [Ccenter1] section

```
[CCenter1]
# Registration data from Control Center
RegistrationName=Your Company Name
RegistrationCode=99141719441710737
# Control Center IP Address
ControlCenterAddress=127.0.0.1
ControlCenterPort=6900
```

If Redline has been installed as an evaluation copy, leave the RegistrationName and RegistrationCode alone. If you have purchased a license, alter these lines to match your registration information:

- These must match the corresponding lines in the RLCENTER configuration file or the two will not be able to communicate because it is used for authentication.

In the ControlCenterAddress and ControlCenterPort specify the IP address and TCP port of the RLCENTER program. If running on the same server as this RLAGENT, the above entries will probably work (since 127.0.0.1 means “myself”). Otherwise, alter these appropriately. In our example, RLAGENT is running on a server with the IP address of 192.168.2.50, and RLCENTER is on a server with IP Address 192.168.2.2. Therefore, the ControlCenterAddress must be changed to 192.168.2.2.

In passing, it is worth noting that one can copy and paste the data in [Ccenter1] to a newly created [Ccenter2] section if it is required that there be reports to more than one RLCENTER.

Configure the Component Integrations

Assume this NetWare server (192.168.2.50) has two MTAs, a POA, GWAVA, WebAccess, GWIA, and an API Gateway. The components are installed on the SYS volume, and the primary domain is located at SYS:\GWDOM. The API Gateway is installed under the primary domain. Here are example entries for some common agents:

Abbreviation	Component Type
[POA]	POA
[MTA]	MTA
[GWIA]	GWIA
[WebAcc]	WebAccess
[NMMA]	Messaging Agent
[NMAA]	Messenger Archiving Agent
[APIGW]	API Gateway
[TFSYNC]	Toffa SyncWise
[RIMBES]	BlackBerry Enterprise Server

Notice that most of the GroupWise agents have the same format, and that this format matches the work sheet entered earlier.

[AgentType]

- **Agent=enabled** (or Agent=disabled) Specify if RLAGENT should try to contact this component. If disabled, none of the other parameters matter
- **HTTPAddress=IP Address** IP Address of the component's HTTP server-Often 127.0.0.1 will work since remote installs are discouraged, but with some multiple Network interface installations, it is wise to be specific
- **HTTPPort=TCP Port** TCP Port of the component's HTTP server
- **HTTPUserName=<string>** Authenticates the component's HTTP server. We use admin below in the example.
- **HTTPPassword=<string>** Authenticates the component's HTTPServer. We use password below in the example.

For component integrations that do not use an embedded HTTP server, such as Guinevere, BES, or the API Gateway, we specify a PATH to the configuration or log files. (See the Guinevere, BES, and API Gateway sections for details.) Assume the default HTTP Ports were used (these should have configured and checked previously), and assume we set the username/password for each to be redline/config -- normally it would be wiser to have different username/password combinations.

For the second MTA on this box, it is necessary to specify a non default http port. This is because two programs cannot use the same TCP Port. In our example, the second MTA's TCP port will be 6666. This should have already been set in ConsoleOne, and tested in a browser at http://192.168.2.50:6666. Note there are two [MTA] sections because two MTAs run on this server.

The configuration should be similar to example below once everything is entered and disabled/enabled as needed. Comments have been inserted with #. We suggest making use of comments to document your installation process.

```
[Global]
# enable/disable the different sources of data
HTTPMonitor=enabled
FileSystemMonitor=enabled
LogFileMonitor=enabled
GWCheckMonitor=enabled


# Intervals are specified in seconds.
SystemInfoInterval=360
AgentInfoInterval=120
LogFilePath=/opt/beginfinite/redline/logs
DataPath=/opt/beginfinite/redline/db
MaxLogSize=1000000
MaxLogAge=7

[CCenter1]
# Registration data from Control Center
RegistrationName=YourRegNameRegistrationCode=YourRegCode
#RegistrationKey=Your RegKey


# Control Center IP Address
ControlCenterAddress= 192.168.2.2
ControlCenterPort=6900

[POA]
# our poa
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=7181
HTTPUsername=admin
HTTPPassword=password

[MTA]
#our mta
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=7180
HTTPUsername=admin
HTTPPassword=password
```

```
[MTA]
# a second mta
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=6666
HTTPUsername=admin
HTTPPassword=password

[GWIA]
# our gwia
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=9850
HTTPUsername=admin
HTTPPassword=password

[WEBACC]
# our webaccess
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=7211
HTTPUsername=admin
HTTPPassword=password

[GWAVA]
# our gwava
Agent=enabled
HTTPAddress=192.168.2.50
HTTPPort=7184
HTTPUsername=admin
HTTPPassword=password

[NMMA]
# unused
Agent=disabled
HTTPAddress=127.0.0.1
HTTPPort=8311
HTTPUsername=admin
HTTPPassword=password

[NMAA]
# unused
Agent=disabled
HTTPAddress=127.0.0.1
HTTPPort=8313
HTTPUsername=admin
HTTPPassword=password

[APIGW]
# our api gateway
Agent=enabled
PATH=sys:/grpwise/domain/wpgate/api/000.PRC
# The following IP address is informational only
HTTPAddress=127.0.0.1

[GUIN]
Agent=disabled
PATH=sys:/grpwise/domain/wpgate/gwia/third
# The following IP address is informational only
HTTPAddress=127.0.0.1

[TFSYNC]
Agent=disabled
HTTPAddress=192.168.0.1
HTTPPort=80
HTTPUsername=admin
HTTPPassword=password

[HOST]
Agent=enabled
```

Save the file once the configuration is complete. Back up this file so that if this file is accidentally overwritten, the work done to create it need not be started from scratch. Some of the nomenclature changed between Redline 2 and

2.5, specifically, some of the leading bracketed descriptors have changed in Redline 2.5. Using RLConfig will update these correctly.

Multiple GroupWise systems that have similar nomenclatures

A rare situation may arise where you are monitoring multiple GroupWise systems with identical agent names and hierarchical structures. To separate these agents into uniquely distinguishable names, you can use the NameSuffix=-NewName in the RLAGENT.CONF file. There will be a new line added to the specific agent section in the Rlagent.conf file.

For example:

```
[TFSYNC]
Agent=enabled
NameSuffix=- UniqueName
HTTPAddress=62.232.233.114
HTTPPort=80
HTTPUsername=admin
HTTPPassword=password
```

The benefit is that instead of having two GroupWise agents that are different but appear the same, you can easily distinguish between the two.

- **CAUTION**: You cannot use a period in this new name

Redline Control Center

Like RLAGENT, each installation of RLCENTER has a configuration file. The configuration file must include licensing information, what IP address and port RLCENTER listens for RLAGENT communication, and what IP address and port

In general you rarely need to manual configure RLCENTER, since RLCENTER provides a web-based interface for administration (CONFIGURE menu). One would normally need the instructions below for a malfunctioning system. The configuration file is a simple text file and can be edited in any text editor. The location is as follows:

- **NetWare** sys:\opt\Beginfinite\redline\conf/rlcenter.conf
- **Linux** /opt/Beginfinite/redline/conf/rlcenter.conf
- **Windows** NONE, as RLCENTER cannot be run on Windows

Open the RLAGENT configuration file. This is a standard INI-style file with sections in square brackets [ ] and key=value parameters: One small difference is comments are specified with # not ;

There are many parameters here, and some of them can be confusing to the first-time user. It is **strongly** advised that administrators configure Redline using the web interface. However for educational purposes, we shall examine the [Global] section and focus on only a few parameters, the ones most likely to be relevant for troubleshooting.

```
[Global]
AgentListener=Enabled
AgentListenHost=0.0.0.0
AgentListenPort=6900
HTTPServer=Enabled
HTTPListenHost=0.0.0.0
HTTPListenPort=6910
HTTPIdleTimeout=10
LogFilePath=/opt/beginfinite/redline/logs
DataPath=/opt/beginfinite/redline/db
ConfigPath=/opt/beginfinite/redline/conf
ImportPath=/opt/beginfinite/redline/imp
RegistrationName=Your Company Name
RegistrationCode=991417194417710737
RegistrationKey=12345678
LicensedUser=500
```

The RegistrationName, RegistrationCode must **match** the same entries in every RLAGENT's configuration file. In an evaluation install, the license information should already match the RLAGENT setup. If not, ensure they do. Everything but the paths can be edited through the web interface. (Configure/Licensing). The RegistrationKey and LicensedUser are also part of the licensing information and can be configured there as well.

Most of the remaining settings can be left as the default. Administrators may specify the IP address and Port for both RLAGENT communication (AgentListenHost, AgentListenPort) and for communication with the end user (HTTPListenHost, HTTPListenPort). "0.0.0.0" means listen on all IP addresses bound to the server. The locations where logs, data, et cetera are stored can also be customized. And for security purposes, you can configure a timeout for the Web administration session (HTTPIdleTimeout).

Save the configuration file once the configuration is complete. Save a backup, so that if this file is accidentally overwritten, the work done to create it need not be started from scratch.

Contact Redline

For all of your support and purchasing needs, please visit our home page at www.gwava.com.

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